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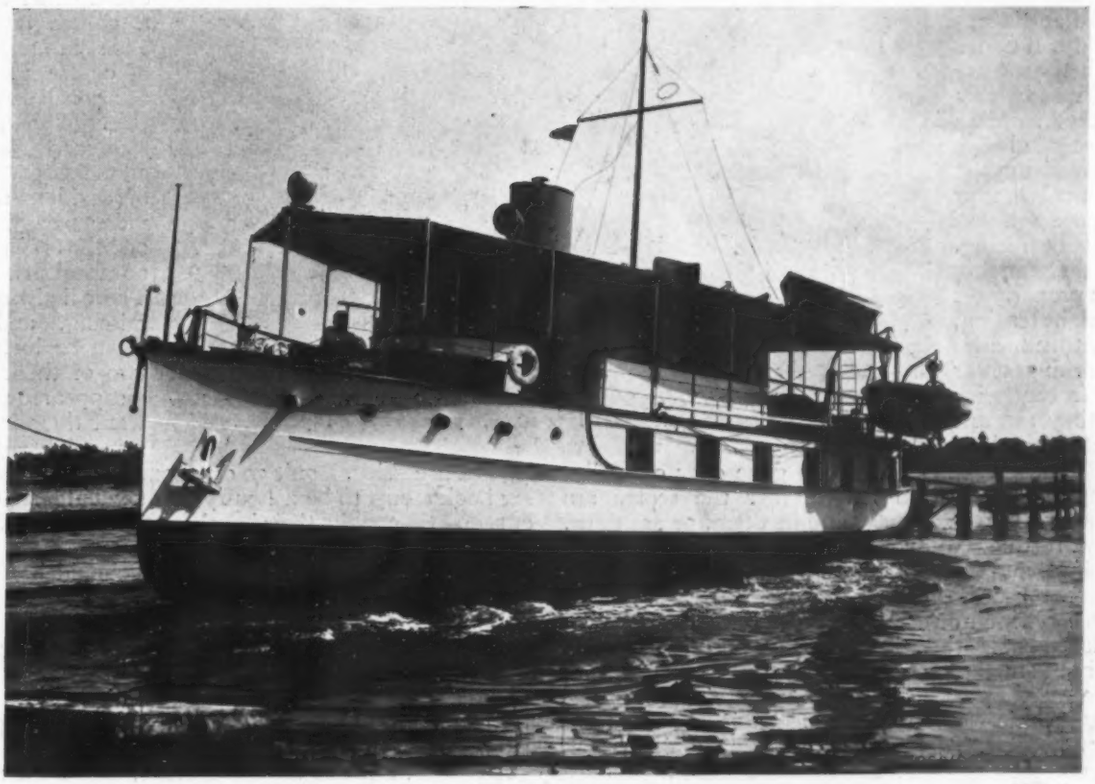


Sliding overboard for the coming season, shining in fresh coats of paint and varnish. Power house boat *René* going into commission.

Time to Fit Her Out!

Something on the Overhaul of Your Gear Preparatory to Going Overboard

NO, we're not going to do it again — not this year, anyhow. It's been done every year, *ad nauseum*, until every one must be sick of being told how to scrape his boat's bottom, how to apply a thin even coat of paint — brushed well in — and how to rub down between each coat of varnish until the resultant deck looks like the top of a grand piano. Most of this "book course" on fitting out is wasted anyhow, because 99½ % of those who do the fitting out themselves have done it so often that they do not need to be told, and the other one half of one per cent usually learn by watching others in the yard do the same job, and never even read the bunk about the "best way" to do a certain job. One does not have to have a correspondence course degree, anyway, to paint a boat properly in this day of ready mixed paints, varnish removers and varnishes that can be bought in any sized can to fit one's personal requirements.

So we're going to pass up the subject in this issue and devote the space to other matter which the editorial staff fondly hopes will be more interesting; and if we get a howl from the disappointed ones that have been waiting impatiently since last April to learn how to fit out their boats with their own two hands, then we'll know we're wrong and will try to make up for our failure next year. We have, however, a couple of special articles that should be of value at this time, on the overhauling and care of your sails, and on some of the engine installation problems in auxiliaries and small power cruisers, which may be read with profit. Too often one waits until his boat is in commission before he realizes that his sails or his power plant are not just right, and then wastes several weeks of fine sailing weather getting them fixed up, or worries through the season knowing that they are not functioning properly.

The best time to overhaul your gear and equipment, and to buy what new stuff you need, is *before* you go overboard and not afterwards. One may think he can get through the season with some of the gear he knew was worn out when the boat was laid up. But this is poor economy and may result in a spoiled week end, or the necessity of replacing the worn out part in some out-of-the-way place where just the proper thing cannot be obtained.

Take the standing and running rigging, for instance. Rust in the splice of any wire stay or halliard is a sign of weakness and no chance should be taken with it. Take

the serving off the splice and see how far the rust has eaten in. If the wire strands are not bright under the rust, by all means replace the shroud or halliard while you are in the yard and a rigger is handy. If either lets go when you are driving her some day during the summer (and that's always when they do let go), it may mean a lost spar or a lost race — if you happen to be racing. See that the standing rigging is properly set up to the right tension, and that turnbuckles are in working order and not "frozen" with rust, as they are apt to be after a long lay-up. Running rigging should be gone over carefully, untwisting the strands to see whether the scores are bright and the fibres still have life in them, or are dark, brittle and rotting. Go over all blocks, examine the pins and bushings, and if worn or loose, replace.

Fitting out is easy when "everybody works but father." The best way to learn how to overhaul and fit out a boat is to start in young and do it yourself.

The proper time to have the engine overhauled is, of course, in the winter or early spring so that the work will be all finished before the painting and varnishing is begun. If this is not done the painting job is sure to be a mess and will get smeared up with grease or finger stains from some careless mechanic — even if such mechanic happens to be the owner himself. Tanks and pipe lines should also be given a good looking over. The former should be cleaned if it is possible to get into them, though most tanks have no plates in them large enough to allow for cleaning the inside.

It is the general equipment that one most often overlooks at fitting out time, thinking that this is something he can attend to and renew at any time, with the consequence that he sometimes does not get what is needed before the latter part of the season, and then loses the use of it during most of the sailing months.

The navigating equipment is the one that is most frequently neglected on the average racing yacht or cruiser that knocks about along shore. Very few yachts have a really suitable equipment for coastwise navigating. The compass is usually undersized, not set in a proper binnacle, poorly lighted and its deviation not determined. Even on boats too small for a standing binnacle, a proper box binnacle, either wood or brass, with some means of assuring a proper light on the card, can be had, and a proper place should be provided for it, when in use, where it will be stationary, and a safe place in which to stow it. Most kerosene lamps for binnacles are unsatisfactory. But a small binnacle we saw at the Motor Boat Show, called the Malabar type, had a satisfactory lighting arrangement which was *guaranteed* not to blow out. It also provides at the same time a small hand lantern for emergency use.

A *good* four- or five-inch compass (if you cannot carry a larger one) is an essential for proper navigation, and it must be kept where it can be used and where its error can be determined. The few additional dollars spent in getting a good outfit is the best kind of insurance.

Then some place should be provided where the chart may be spread out and tacked down so that parallel rules or course protractor may be used on it. There is too much "by guess an' by God" navigating on yachts because there is no place to properly lay out a chart and plot a course accurately. There are many kinds of course protractors and parallel rules. Get the kind you are most familiar with, and by all means get *two pairs* of dividers and provide a pocket for them on the bulkhead or somewhere handy. There'll always be one missing, and you'll often be lucky if the two of them haven't disappeared when you want them in a hurry some night. An *efficient* log is a necessity. Don't go overboard without one. Also a log book seems to be a luxury most yachtsmen do without, and then make their hourly entries on a loose sheet of paper which can never be found.

A lead line properly marked also should be on board. Yet on most small yachts this is missing. Also tide tables, light house list, and nautical almanac are essential.

A suitable pair of binoculars should be on board and kept in a case handy to the helmsman. A night glass (no, not the kind you are thinking of) is also a good thing to have. It will be invaluable if one does much night navigation. The fog horn should be overhauled. With all of the good bellows horns on the market, one need not overstrain his lungs on the tin variety that usually has a broken reed in it.

Look over your life preservers and test them. They will deteriorate with age and must be renewed now and then. Some cushions are buoyant and pass inspections as life preservers but they are not, as a rule, very attractive, unless they are covered with some suitable fabric or material that will help to beautify the cabin.

The table and galley equipment should also be given a proper overhaul. It is surprising how much breakage can occur in the course of a season, and an odd assortment of crockery and china picked up from Port Washington to Grand Manan is not the most attractive thing on an otherwise smart yacht. So why not get the old set filled up, or get a new outfit when you go overboard.

While fitting out, it is a good plan to give the boat a thorough inspection, inside and out, for signs of deterioration. Dry rot is apt to start at almost any time. This may appear up under the transom, in the frames and planking above the water, if the boat is ceiled inside, and in places not well ventilated. Examine the mast step for signs of decay, and also the garboards and heels of the frames.

In winding up these few words of wisdom on going to sea properly prepared from truck to keel, it might not be amiss to lay some stress on the value of a suitable mooring to which to tie up in your home port. Too many owners trust their valuable yachts to a makeshift mooring not properly inspected, and frequently not heavy enough. A good mushroom anchor with a suitable length of chain and a heavy riding line, that should be renewed every Spring, is the least one can do to insure the safety of his vessel when he leaves her alone for a week or more.

Sails, Their Overhaul and Care

Points to Bear in Mind when Bending and Handling a New Suit, or in Overhauling an Old One

By C. G. Davis

IN overhauling your gear before going into commission for the summer afloat, one wants to give his sails considerable attention, whether he is buying a new suit or is making his last year's do another season.

Sails frequently get some pretty rough treatment from yachtsmen, especially from the racing fraternity. The main object with them is to win races and very often a light, silky ballooner or spinnaker is carried on through a squall, or with a breeze blowing that in anything but a racing yacht would put the vessel under reefed canvas.

Many a time these light sails have been lugged until conditions became so bad that when the spinnaker guy was slacked the whole blooming mess has gone over the bows and the sail eventually hauled aboard over the stern out of the water. Sails that get such treatment have to be of the best material, and yacht sails usually are. Coasters and fishermen making hard-earned dollars for their owners have to be more careful with their canvas, often reefing or stowing a weak sail to save it and making a suit of sails do service long after they have reached the age of retirement. Just when this interesting period in the life of a sail arrives is something many persons are doubtful about. Yacht sails seldom live to reach this age of retirement, but on merchantmen the case is different. Sails are patched and repatched, recut, reroped, snake-stitched, or anything to get another voyage out of them. But yachtsmen want their sails to look well, as much as they want them to be efficient, and in fitting out the sails are gone over carefully, to see if they will do for another season.

Old yacht sails are often sold to fishermen, who recut them and get years of service out of them; or if they are too far gone — generally from rot and mildew — due to being stowed away for the winter before being absolutely dry, or kept in a damp, unventilated locker, the sails are used for winter covers.

The main reason why yachts sails seldom wear out in service is the abuse they are subjected to and the constant desire of their owners to see if they cannot "outwind" some other craft, which leads to the carrying on of sail that gives the sail cloth far more sudden and severe stretching than is good for the cloth.

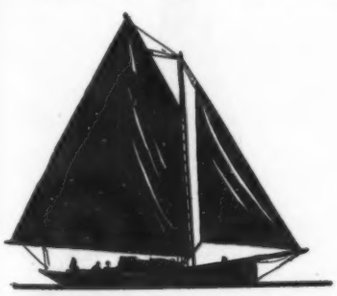
Often the sails are improperly bent and this causes a strain on one part of the cloth only, which pulls them out of shape. Then, too, the rigging often stretches. I can distinctly recall one occasion where a yacht with a brand new suit of sails, after sailing her first race of the season had her sails sent to the sailmaker's and recut to raise the boom off the cabin skylight, when it was not the fault of the sail at all but was due to the fact that hard trimming down on the main sheet had stretched the headstays to such an extent that the masthead itself had come aft and so, naturally, lowered the boom. All that was required here was to set up the headstays and the sail would have been all right. So before ordering your sails recut in the spring, see that your standing rigging is properly set up.

Of course there are times when it is the sail that stretches. We got caught that way one day on a Fifty-footer, with a brand new and very full cut sail that was all right in the damp southerly airs the first few days of the New York Yacht Club Cruise, but when it came to an all day beat around the Cape in a dry, hot nor'wester, that sail dried out and slacked up the fibres of the cloth to such an extent that the main boom came down block and block and still the cloth bellied out like a ballooner.

The weather has far more of an influence on sails than many yachtsmen are aware of. A change of wind from north or south, or even the change from noon to night, will shorten a sail perceptibly along the foot, and for that reason sails should be provided with some means for hauling out or slackening along the gaff and boom. Most racing yachts are so rigged, but many yachtsmen, especially cruising men, seem to neglect to use these devices. Thus the head and foot of the sail are soon stretched out and make a sail "nigger-heeled" instead of having that pretty roach which sailmakers take so much pains to build into a sail when they cut and sew it. Besides the looks of it, this pulls the draft out of a sail, and as this draft or curve which shapes a sail like a bird's wing is what gives a yacht the push which sends her ahead when close hauled, this loss of roach naturally hurts the propulsive properties of the sail.

Another way that sails are often abused and stretched out of shape is when the peak is not hoisted high enough to take the weight off the boom. A sail is properly set when the wrinkles in the cloth extend vertically from the peak of the gaff down to the tack, and not from the throat out to the boom end. When the latter occurs, the sail is badly stretched out of shape and there is a hard spot from throat to clew that gives the sail a bagginess above and below this line that soon ruins its shape.

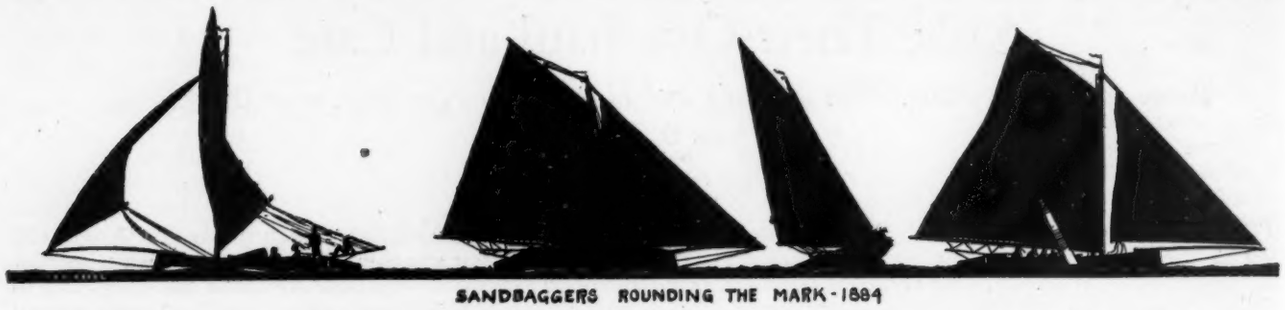
Sometimes one gets caught in a race by a hard squall of rain, and on some small yachts with no means of slacking up the foot the sail is badly stretched out of shape. This can often be remedied by sailing the next few times with the clew eased in and lashed so that there



WELL HOISTED

POORLY HOISTED

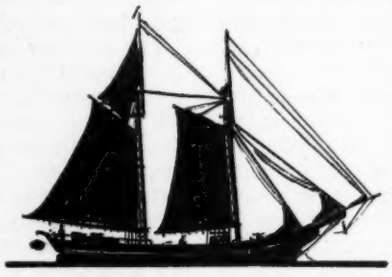
ROACHED SAILS



SANDBAGGERS ROUNDING THE MARK - 1884

is slack cloth along the foot. The cloth, by being stretched up nearer the middle of the sail, comes back gradually to its original form.

All new sails stretch. They are expected to. But the middle should receive, as near as possible, the same stretch as the edges. This is why the sailmaker, with a new sail, provides a tag on which is written the length on boom and gaff the sail should be stretched to when new. So watch these directions when bending the sail. Only take up slack cloth as it appears by wrinkling, and even then it is better to have a suggestion of wrinkling left in it, rather than to stretch it out as flat as a board. Bend the head of the mainsail to the gaff with a hitch at each grommet, to make each one carry its proportion of the pull on the sail. The round and round lacing (just rove through the cringles and around the spar) stretches a sail so that the middle sags away and all the weight pulls on the head and throat cringle, causing a fan shaped set of wrinkles to appear in the head of the sail.



NIGGER HEELED SAILS

Reefing a new sail will often pull it full of unsightly wrinkles, but these can be worked out again. One of the best remedies is to hoist the sail on a nice dry day, with the yacht at anchor, and just let the sail shiver in the wind; this gives the weave of the cloth a chance to work back into its original place. Or you can take the yacht out and sail around with the foot of the mainsail not hauled out very hard.

Sails are like the strings on a violin and there are many expedients resorted to by experienced yachtsmen to keep them right. Every change in wind velocity requires more or less of an adjustment in the sails, depending on how hard the canvas is stretched or how slack it is left, and the sail's tension (its flat or more hollowed draft) varies with each type of yacht. A six-meter boat can stand sails very flat while a heavy cargo craft needs more curvatures, or bag, to push the heavy load.

Some yachtsmen pay too much attention to the luff of the sail. As long as they get that part hove up so that the bolt rope stands like a bar of iron they think the sail is perfect. But the leech is far more important. Keep that so there is no bag which prevents the wind's unobstructed flow off the sail and you will be getting more drive out of it. The sailmakers put a drawstring up through the doubling on the after leech, and put it there for use, not merely as an ornament. Yet many men merely tie it up loosely just to get it out of the way. If you will study this, and try the effect on your after leech by hauling this line tight, or slackening it up, you will soon realize how much this much ignored little string can assist you in getting a perfect setting leech. A very slight tightening up on the string on a Victory sloop had the effect, one day last summer, of making our boat outpoint our rival who had held on to us, tack after tack, for a mile going to windward and resulted in our drawing ahead enough so that we won the race. There is an old saying, "It's the little things in life that count," and this is very much the case with sails. A little pull will often make a wonderful improvement in the set of a sail.

After three or four seasons' use a sail gets stretched so that it is set, the elasticity in the fibre being gone, and such sails can be bent and kept bent, to the same marks year in and year out. Before a sail gets to this point most racing yachtsmen say it is "dead" and they must have a new one. But to a cruiser such sails are just in their prime. Blow high, blow low, your canvas is there, holding its shape, and you know you can depend upon it. Years ago sails used to be kept on yachts as long as eight or ten years. A new sail was a bugbear; it had to be nursed all the time to keep it from undue stretch.

In overhauling your sails in the Spring you can tell the age and condition pretty well by an examination of the cloth and roping and thus know if it is fit for use or is getting dangerously weak. By untwisting the lay of the

(*Continued on page 78*)

SIX METER BOATS ROUNDING THE MARK - 1924.

The Loss of the Sloop *Whippet*

How the Brave Little Sloop Foundered at the End of a Towline in One Hundred Fathoms

By Joe Lee

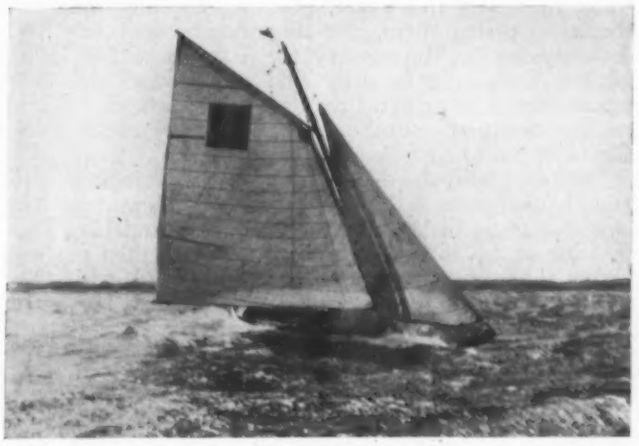
SHE went down in one hundred fathoms. The mast went down as though it had been oiled, like a smooth piston-rod fitting into its sleeve, — no catch or hesitation in the machinery, — just a little lower, and a little lower, and a little bit lower, and then a little lower, and a little lower till the spreaders went out of sight, and then a little lower till the truck was not there. The fellow on watch, with a hatchet in his hand, had asked, "All right?"; and I had looked at the Skipper and the skipper had looked at me. The boat rolled; one of us said, "All right"; the blade severed the towline, and Davy Jones took her. I went back to sleep. We made better time after that, not having anything in tow. The fellow on watch afterward said a wave first went over her stern, filling her cockpit and swashing into the cabin. The wave pulled the stern under first. Then the bow went.

The *Whippet* was known well all along the New England coast, for two things: her smallness and her dexterity. She was one of the few boats only seventeen feet long that had crossed the Bay of Fundy in a storm and come through intact. She was used for pleasure, but she was not a yacht — no more than the *Spray* was a yacht when Captain Slocum sailed her single-handed around the world. She had rounded Cape Cod several times, both in fogs and in calms. Two or more nights at a stretch in open sea with her decks a smother of white, running from port to port, was her regular diet. Her deck stood 16 inches from the water on even keel. She was a sloop, built at Manchester.

We pricked it off on the chart where she sank, as near as we could calculate it: Matinicus Light E. N. E., 72

***Wanderer,* an auxiliary Friendship sloop which was towing *Whippet* when she sank.**

miles, Cape Elizabeth N. by E., 31 miles; time, June; weather, a northeast storm. With *Whippet* the only difference after she sank was that, whereas a few cubic feet of space enclosed under a low deck and cabin roof had once been used by three men to double up in and cook themselves hot tomato soup by way of taking that sting off seas and rain that whipped by outside, now that same handful of cubic feet housed under pressure of 600 feet a few gallons of water in an ocean where a thousand cubic miles of water were nothing.



***Whippet* was one of the few boats less than 17 feet on the water that had crossed the Bay of Fundy in heavy weather.**

The story of that last trip may be told. Like others it is a tale of a falling barometer and gathering clouds. It started in a pleasant southeast wind at Chelsea.

A larger, husky 23-foot waterline sloop named the *Wanderer* and built at Friendship, Maine, left the boatyard at Chelsea on a sunny afternoon to tow a newly purchased whaleboat down to Beach Island, Maine, and bring back the little sloop *Whippet*, which had been resting from contact with the seas on Great Cranberry Island, Maine, at the center of Maine's seaboard. A crew of six were signed on for the voyage: a skipper, a mate, a seaman, a supercargo, a cabin boy, and a five-horsepower Hubbard engine, which quartered in the cabin with the officers. The trip down the coast is a story of gentle southwest breezes quietly fanning the stern, of peaceful watches under an easy-riding moon, and a log which recorded the passing of Cape Ann, the sighting of Seguin, the passage through the Muscle Ridge, the threading down Penobscot Bay, and the departure from Beach Island through Eggemoggin Reach, past Casco Passage to our final destination at Great Cranberry Island, with as much regularity as an automatic tape cutter.

As we came into the cove at Cranberry Island on an afternoon, just 48 hours out from Chelsea, we saw the *Whippet* swinging to her anchor, never looking better, with her shiny white topsides, her glossy green underbody, and nicely varnished spars and brightwork. I laid aboard her as we passed the towline, to overhaul a wayward block or two, daub putty here and there on her deck, and furl the sails properly. Then I returned to the *Wanderer* and we headed out from shore, with the *Whippet* towing astern, headed toward Long Island, which was waiting for us six miles off shore. Rounding the southernmost point of that chunky and rather square body, we said good-bye to the coast of Maine and shaped our course homeward, S. W. by W. ½ W, 126 miles for the Boston Light Vessel.

The *Wanderer* was bucking a head sea from the southwest, which, deserted by the wind that caused it, groaned depressingly as it laid out on its final stretch for the beach behind us. Dark clouds, ready to break with rain, held back at a distance over the masthead. We set *Whippet* on an inch-thick towline, a hundred feet long, ready for emergencies. The nervous rhythm of the ocean began to settle into its stride — and here my story begins.

Night came in heavily over the sea, setting its black candles on the water. Under the draped clouds a slight, sinister wind, fast shifting from southwest to southeast, slunk in across the water, perusing the oily seas but scarcely rippling them, like stage hands, profanely and drowsily setting the scenery for a tragedy. The boom yanked from side to side. The sail rustled and beat against the topping lift. Uncertainty was sensed, flouting her banner in the southern sky, as the North Atlantic Ocean began to close in around us.

Two men held the deck for the first night watch. The wind hauled more to the east but scarcely blew at all. The elements could be heard in the distance skirmishing for a position of advantage, and every now and then pushing across the surface with a light flare of wind, as if they were reconnoitering. Matinicus Light, which lay a few miles north of our course, later appeared on the starboard bow, scattering its flashes into the night. Toward midnight the heavens sagged and opened, dropping large, slow drops of rain that chilled, and dripped from points and edges of objects in the cockpit. The *Whippet* skidded along astern, white and fanciful in the pursuing water. The wind backed more to the northeast and began to come up. Occasional puffs of air struck us from ambush behind rising waves. The boom began to lift. The boat reeled. The mainsail took a deep breath and braced itself. And then the storm, horsed and charioted behind the eastern sky, rode in across the sea.

First there was a barrage of light artillery, playing tattoo on the mains'l and stiffening it full over the water. The *Wanderer* leaned and picked up speed. Then the advance cavalry of the storm swept in across the sea, striking sparks from wave-tops and denting the water with its hooves. The mate, looking at the sail and watching the sea astern beginning to change from smooth to sharp, said for the first time what he repeated at intervals during the ensuing day, "If the wind continues to increase at the present rate, and the seas continue to make up, by night there will be a breeze and there will be a sea." As dawn came in and played her hand openly on the surface of the water, we swung into the wind and tucked in two reefs, which was all the sail provided. Then we squared off again to our course, zigzagging down the fronts of waves while the *Whippet* swirled and speeded astern.

Here a curious thing happened which was to grow in our imaginations later. The *Whippet*, coasting swiftly down a wave, overstepped her towline. As the rope tautened it caught on the further side of her fin keel. To my consternation I saw her start to tow backward, and then swing sideways, checking our headway with a sickening drag, as though it would pull one or the other of the boats in two or snap the hawser. By the time the *Whippet* had straightened out again she had turned a complete circle.

The storm now began to muster its strength behind the horizon and swing into full action. The banners of the tempest, blown flat across the sky, streamed by over the masthead in low-scudding clouds. Fierce flaws took savage pot-shots at the mains'l. Blasts of air winged across the water and hit us like charges from a cannon. The water underneath the boom was bombarded by slugs of rushing air-currents, which struck fair, and ricocheted down the wind-track to leeward. Through the musketry of the rain, and the volley and re-volley of the seas, troop after troop of furious squalls marched down the avenue of water astern, and threw themselves upon us as if to overpower. The *Whippet* followed gloriously, her heavy ballast keeping her for the most part from running far ahead or picking up too suddenly on her hawser. Our small dory, set to a painter 30 feet long, towed jerkily a third of the way from us to the *Whippet*, yanking ferociously at her towline, and then jumping ahead so as barely to miss our stern. The skipper lay below, resting while the resting was good. The supercargo helped him. The cabin boy peered sheepishly out of the hatch. The seaman steered. And the mate eyed the water springing by in streaks along the gunwale.

Then the dory snapped her painter.

We hauled into the wind, taking seas over the forward deck, and ran a short way till we had the runaway abeam. Then we tacked and ran down on the skiff, taking her upon our weather bow with a crash that almost knocked it in two. Three men held her by the bow while one secured her with a new and heavier rope.

Little attempt was made to cook or eat in the disorder that thrived in the cabin. We eyed suspiciously the increase in the gale and made our prayer that the *Whippet* would not get adrift, as the possibilities of going alongside of her were fraught with danger. As noon came, the barometer began falling fast. The wind redoubled its efforts upon the sail. When early in the afternoon the jib sheets snapped without warning and sent the canvas kiting in the air, we lowered the head sail and with labor again secured the sheets. The *Wanderer*, now reeling painfully, reached her bare mast above the reefed mains'l into the low clouds and fled down wind. Then to our amazement the painter of the dory again parted.

We called all hands and hauled in the mains'l to come about, but the boat would not come. We tried again, flattening the mains'l and slacking the jib, and succeeded. But the skiff, as white as the whipped water, was not in sight. Our course had been so irregular as we trimmed sail that we did not know where to look. After tacking back and forth, hoping that she might appear on a wave top, we gave her up.

We then shaped our course N. W. toward what we believed was the nearest land, starting the engine, and heading up with the wind abeam. This course made the *Whippet* ride easier as she was not tempted any more to coast dangerously down to us upon a following sea. If the towline would only hold six hours more it seemed possible that we might reach a harbor before dark. Failing, we planned to head off for the night clear of the shore. The *Whippet* was coming along prettily, throwing the water off from her graceful lines, as she had done in the Bay of Fundy seas, and many other tempests. Suddenly there was a groan from the cabin. The skipper's foot had become caught in the coupling of the engine, — tearing off his shoe and sock and part of his toes. He was helped, almost fainting, to a forward bunk.

Then the man at the helm cried, "*Whippet* adrift!"

The skipper, directing from below, was for letting the craft go, reluctant to add more troubles to those he already had. The mate, however, persuaded him to run back, and it was then decided to get sail off the *Wanderer* and drift down alongside. The dangerous work of coming close aboard *Whippet* and picking up the towline, which had pulled the ringbolt to which it was fast clean from our after-deck, was accomplished under difficulty. The skipper, in spite of his injury, came on deck to take the wheel during the maneuver. We re-secured the towline, this time around our mast, leading it through a chock aft and the cabin hatch.

Prudence now cautioned that we run off shore, so we set the jib and shaped a new course due South. Then

night came on and all hands but the seaman turned in. The skipper had made the inexcusable mistake of not insisting that everyone wear oilskins. Consequently we were all chilled to the bone as well as exhausted. Those who had gotten damp in spite of their oilskins found their dry clothes used by those who were completely soaked. The lack of hot food made matters worse. The motion of the boat was heart-breaking. Those ashore do not realize that a boat does more than merely roll. At each turn of motion, there is a violent jerk and thrust, like someone shaking down a thermometer. How the seaman stood a two-hour watch in his present condition, he alone knows.

"The *Whippet* swirled and speeded astern."

At midnight I came on deck. The barometer had been falling. The gale was doing its stuff. Sticking my head from inside the cabin through the hatch was like coming out from behind a sharp corner on a winter's day. The wind took your breath. The night was dark but luminous with an unseen moon. The *Whippet* danced on the wave-tops astern, like a monkey on the end of a string, dim and noisy in the night. Turning down to leeward I could see the waves racing away ahead, matching their speed with the speed of the clouds close above them. The rain came like bullets. The supercargo now on watch, doing as nobly as a seasoned salt, sat silent hugging the tiller, drenched and shivering, eyeing the compass and holding the jib full.

Two hours later I took the watch. The wind was blowing still stronger — so hard you felt you could cut a hole through it. After I had had the wheel a few minutes the tack of the jib parted. The seaman, lying on the deck, got it down. I called for the engine. The skipper, with his bad foot, snapped to. Without sail or power there was danger that the *Whippet* would drift down upon us. For the first time on the trip the engine would not start. I kept *Wanderer* zigzagging so as never to be directly to leeward of *Whippet*, and tried to keep her at an angle to the seas, neither dead before them nor abeam, as that seemed to be her fastest point of drifting.

After half an hour the engine coughed and started. We headed W. by S., so that put the *Whippet* more across the seas, and gave her less chance to run up on her painter than when the seas hurled her from straight aft. But this course did not seem to help as much as I hoped. In the morning, when it became light, I saw why. Huge swells, underlying the broken surface sea, followed us in, straight astern, at an angle with the smaller and sharper seas on the surface. These seas were bending in toward the shore, as seas diagonally approaching a coast are constrained to do by the drag of their landward end upon the beaches. As daylight approached, I strained my eyes for a light. The supercargo had thought he had seen a fixed white light off the starboard beam, which might have been Boone Island. With dawn the *Whippet* could be seen coming astern, reeling and cutting the waves bravely, but seemingly almost half full of water and quite sluggish. It is to be mentioned that just before my watch the supercargo had felt an unusually hard tug at the towline, as though the *Whippet* had again shot ahead of her hawser and again turned completely around. The barometer was still falling.

As I turned my watch over I told the seaman of *Whippet's* condition, but advised him that as she had taken twelve hours to get half full there was no danger of her getting all full till we reached harbor, which we should do within six hours. Stupidly I did not consider that after being partially brought down she would fill much more quickly. Also the slides of the companion hatch had not been put in and the seas washed clear into the cabin.

The cabin boy had been kept at the pumps on the *Wanderer* during the night at intervals of an hour, bravely performing a hard and thankless task. To go alongside the *Whippet* and put a man aboard to bale her out was considered; but the gasoline fumes, mixed with alcohol and kerosene, and the odor of stale food in the *Wanderer's* cabin, plus the cold and exhaustion of all hands, made the inclination to do anything except for self-preservation slight. The danger of going alongside the *Whippet* with a crew in that condition was manifest. Accordingly she was allowed to follow astern, still gloriously scattering the seas from her bed, and riding the gale, with rigging taut.

I turned in. I tried to sleep, huddled together with other members of the company below. The wind outside was shaking the ocean as it might shake a twig. The sky was brought almost down upon the cabin-house roof by leaping waves. The seaman afterward reported that along toward the middle of the watch the *Whippet* again caught up on her towline and turned completely around — the third time. A hatchet lay in the cockpit ready for emergencies. The tempest chafed and twisted overside. The *Whippet* still rode true, lashing the storm as hard as it lashed her.

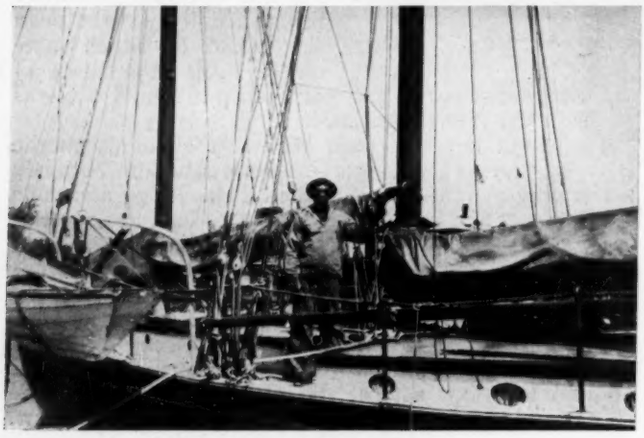
After I had been sleeping shakily for a few hours, the cry was suddenly raised. It brought me and the Skipper out of our sleep to the hatch, gazing aft at the beauty still unconquered astern. It was the *Whippet*, — sinking. A wave that had flooded her cockpit was seen retreating from her deck. Her bow lifted, rested its cheek on the water for a second, and then went under. The seaman on watch, with the hatchet in his hand, asked, "All right?"; I looked at the skipper and he looked at me; someone said, "All right"; down came the blade severing the towline. Then the mast started going down, like a well-oiled piston-rod fitting into its sleeve, — without a catch or hesitation in the machinery, — just a little lower, and a little lower, and a little bit lower, and then a little lower, and a little lower till her spreaders went out of sight, and then a little lower till her truck was not there. And Davy Jones took her. She died as she had lived: trim, cleansed with action, battling throughout. The seaman afterward said a wave — but I told all this before.

The Cruise of Diablesse

From Nassau to St Thomas, via a Revolution or Two

By FREDERIC A. FENGER

THERE were high jinks among old and new friends at Nassau for nearly a month, sailing parties, and exploring of sea gardens and cays, while in our soberer moments we cast about for crew. An easy task, one would think, with the local government, from the Colonial Secretary down, to help; yet there seemed to be a hitch, somewhere. Yankee skippers have a proverbially hard name through all the West Indies, and our late hand had spread certain rumors regarding the owner and mate of *Diablesse*. Although the Mate went by the name of "Kitty" and wore dresses, she handled the



Fred, our Bahama "conch".

wheel like a *man*, put beef onto a line like one and, at times, swore like one! What chance, then, had a poor lone native with such a pair? "She a blaack boat an' she hab bad name on she stern!"

Again, we were prepared to chance it alone and had already made ready for sea — much against the pleadings of our friends — when, on our last afternoon ashore, a tall "conch" stepped up to us. He might have been one of the fellows who took us through the Northwest Channel. There was another at his heels.

"Sur? You is lookin' fo' two han's?"

"ONE!" And it was roared for all Bay Street to hear.

The tall one grinned, cheerfully enough, and turning to his companion, said, "You heah w'at de skippah says? He wan' jes' ONE man. You better lef' de win' take you to odder anchorin'." Then to the skipper,

"Se'f praise ain' no reccamendayshan. Me Jamaica borned, Nassau brung up, an' kin cook. Bin spongin' 'mongs de cays sense me wuz li'le boy. W'at mus' me do, an' fo' w'at?"

"Whatever I tell you to — for four pounds a month, rum, tobacco, and white clothes. Any trouble and you go ashore on the first cay we can find. We'll up anchor in the morning."

"Yassur."

Now the strange part of it was that when we awoke in the morning, there came the clatter of someone fussing about in the galley. "Good Lord," said the Mate, "I believe he really means to ship."

"Surely," from the skipper who had not been at all sure himself. "Tell him what to get for breakfast."

So began the galley-reign of Fred, who was to know the fo'c's'le of *Diablesse* as his home for the remaining two and a half years that we owned her. Already a good cook, he was soon enough coached into the high realms of chefdom. On deck he was a bit of a rough sailor, but after the skipper had drilled him into ways that were just short of the brassbounder, he became as well trained as any squarehead. An experience or two in hurricanes — which the skipper secretly envied — gave him an easy contempt for whatever muzzlers we should encounter. For a little rough-and-tumble ship like *Diablesse* we could have found no better man.

From a strain of coolie blood, of which he was inordinately proud, there was something of the Indian in his appearance. "Me's neider blaack, no' brown, no' yaller, but coppah *red*." And so he was, especially when one saw him in the sunlight. A bit over six feet, his legs ran up, rather slim from large dextrous feet, into narrow haunches from which his trunk spread to able shoulders, and his arms were those of an oarsman who uses his back in rowing. His face was the winning part of him, mobile with an ever present sense of humor, and quick to smile. His eyes, doggy brown, were frank and wide apart. He could wear any size of hat from six upwards, and he thought he was about twenty-four years old.

It was not the true northeast trade that we had expected, but a weak easterly cousin which fetched us across the remainder of the Bank to Ship Channel Cay where, late in the afternoon, we came to an anchor inside the light — hoping for a better lay in the morning. How we were to curse that easterly! for we were to be served with nothing else all the way to St. Thomas. The sun was two hours up on the tenth of May when we worked out through the narrow opening in the bar, which was breaking on either hand, and once more we were in "de Oshan" as they call blue water in the Bahamas. The wind came even more easterly than on the day before, so rather than waste time beating up to Eleuthera, we bent our course down Exuma Sound, pinching to wind'ard every foot of the 133 miles to Rum Cay where we anchored on the afternoon of the third day out, still hoping for our northerly shift. San Salvadore mocked us to wind'ard, but after all if it is not one island it is another that would do just as well, and Rum, with its little native huts clustering around Port Nelson, was charming enough to contemplate in the fading light of the afternoon. The wind mocked us too, veering south of east, and at the end of a moonlit night, five days from Nassau, we ran in at Castle Island, eighty miles to loo'ard of our intended course. If the wind should hold contrary much longer we'd be fetching down along the Haytian coast, and that was just where we did not care to fetch, for in Nassau we had been warned to keep away on account of a revolution. Only recently a yacht had been fired upon from the shore. A wild set, down there. Yet the skipper held secret hopes of seeing just what they were like. If the wind *should* drive us down on the coast, why —.

For two days we hung to our anchor while it blew great guns from the southeast, but as there came no great promise of a let-up nor change in direction, we at last stood out into it on the morning of May 16th. That night the wind backed and eased a bit, just to tease us, but despite our best efforts we were carried rapidly westward by the strong surface current, and passed under the lee of Inagua.

In the morning we were well into the Windward

The skipper took the mate ashore to let her see and smell the town.

Port de Paix. Coffee on the quay, and the *brotheur journaliste*.

Passage where an even stronger current fetched us toward the loom of Cuba, which now appeared to the westward. We tacked ship but made little in the jumping seas, and coming back on our course, picked up high Tortuga in the afternoon. By sundown the wind was blowing gale force from E by N. To save our gear we hove to off the eastern end of Tortuga, but in doing so the old cloths were frisked out of our jib. Through the greater part of the night a small steamer was also hove to, close by, and when the squall blew out toward morning she stood away to the nor'ard.

So it was the temporary loss of our jib that cast the die for us, and when at sunrise, we saw inshore the latticed sails of an Italian bark standing down through Tierra Baja Roads, probably bound for Port de Paix for a load of logwood, we decided to take a chance and follow her in. If we should not like the looks of things, we could go on after we had patched our jib. We made sail and stood in around the end of Tortuga.

Crossing the roads near Cape Rouge we followed along the rut of the Haytian shore, which is steep to. Almost from the very foreshore the mountains rose up and scraped the bellies of the trade clouds with their tops. Lower down, the cultivated slopes of hillsides stood out in vivid green against the darker unclaimed bush around them. Nearer the sea an occasional planter's house, glistening white with roof of red, showed under the waving tops of a coconut grove. Reeling by, close aboard, lay tiny inlets with clumsy native craft anchored chock-a-nock, and white beaches and toy grass-hut villages and very little sign of life. A somnolent native riding along the beach on a hawse-fallen mule seemed not to notice when we overtook and passed him. But for the mule and the carbonari who must be tending their fires up in the mountains, all Hayti lay in the doze of mid-forenoon. No one rushed down to the water's edge to fire at us. Over our bowsprit-end the bark had already swung to her anchor and her crew were aloft furling her slats of sails.

A nub of a point shouldered us off our lazy course and then revealed Port de Paix, deep in a tiny bay set into the very feet of the mountains and guarded by two ruined forts. Scarcely had we hardened our sheets to lay up for the weather side of the harbor than a whaleboat shot out from under the point and ranged alongside with a clatter of oars and a barrage of black French oaths, while ten pairs of desperate hands laid hold of our rail.

"Sheer off!" roared the skipper. But he might as well have tried to hold converse with the *Haut Pilon* behind the town, for the next moment we were boarded by as wild a crew of ruffians as he had ever seen out of a movie. Black Frenchmen, they were, some with long Parisian boots on their sockless feet, giants most of them, moustached and fluffy bearded, perfumed and sweaty, in baggy trousers and fluttering coats, and every last one of them armed to the eyelids. Butts of revolvers and ancient duelling pistols and the handles of all manner of cutlery from short swords to dirks, stuck out from pockets and belts and open shirt bosoms. The skipper spun the wheel up and placed himself before the Mate. Fred, in the bows, exclaimed, "Now wot is *dis?* Seems like dem is takin' charge. COMPLETE charge."

They had. The largest fellow of them all, almost seven feet and wearing half-fathom-shoes (he got 'em jammed between the wheel box and the cockpit staving) assumed the wheel. Two of his minions were lowering the jumbo. Two others were getting out the anchor. Another pair were at the fores'l. The skipper ordered Fred to serve out the stops. For they were seamen, those fellows, and in a trice they had the two sails harbor rolled. A touch of opera bouffe, this, but with almost too much realism. While they were thus engaged the skipper jumped down into the cabin and came up again with a pair of Colts in *his* belt. One was only a measly little 32, but the other a husky 38–40. He nudged the pirate at the wheel and directed his attention to the thirty-eight-forty. "*C'est pas un bébé!*" Well, that brought a grin from the big fellow.

Our anchor was now over with all its chain out, to the bitter end. "*Pas du fond,*" grunted the big fellow. And his crew were all aft swinging the main boom from side to side by main force while he tacked the schooner stern foremost, to loo'ard across the harbor. We were almost on the beach when at last the anchor took bottom. Then they handed the jib and the mains'l and faked the sheets, neat as a pin. It was too good a job. Perhaps those fellows were planning to keep the ship and put us ashore.

Yet in all conscience they had been decent enough, and there remained only the business of explaining our business in Port de Paix. The skipper took the big fellow through the ship to show that we had neither contraband nor weapons other than our three rifles and two revolvers. In fact we were cruising for pleasure and magazine material. Extreme scepticism, as to what pleasure one man and his wife might derive from sailing the high seas short handed; but the fact that the skipper confessed to being *un literateur* made some impress. He must write this in a letter which the big fellow would take ashore to the local governor.

The letter was written in English, for the skipper's French was hardly fluent enough for rapid typing, and while all eyes peered down into the cabin from companion-

way, skylight, and ports, our individual histories and the wanderings of *Diablesse* were clicked off on many sheets of paper.

Then they left us to our own surmises, not only with the letter to the governor but also our register and bill of health from Nassau. The skipper must come ashore in the afternoon for his papers.

Although there had been a certain background of humor, the skipper was already regretting, sincerely, that he had ever brought the Mate and *Diablesse* into Port de Paix. So, with needles and palms and new cloths, he and the conch set to work on the jib while the Mate prepared a quick luncheon. We'd sew like fiends and then, at the end of siesta time, slip our cable and sneak out before those fellows had time to scamper into their whale boat and give chase.

That was the plan while corned beef hash was going forward in the galley. But the corned beef hash, as soon as it was stowed, produced a magic change. We'd finish the jib and then go ashore to see what those rascals were up to. That is, the skipper and his conch would go ashore, always keeping an eye to the schooner where the Mate would guard the ship with the three loaded rifles to hand. Inconsistent, perhaps, but that hash had put reassurance in the owner's stomach and he knew at heart that nothing untoward really would come to pass. He and his conch had too cheery a way with them.

So toward the end of siesta time — the jib was not nearly finished — the Mate was left sitting in the cockpit with the rifles for company. Fred had been offered the small Colt's but he refused it, saying, "Me doan know dem ting," and disclosed a razor folded back and neatly concealed in his hand. "Jes' in case we mus' break loose, quick-like."

As the conch pulled away the skipper saw a small American flag run up on a tall staff just inshore of us. We made for it and found the consular agent, a cheery little German by the name of Abeg, who assured us that everything was all right for the present although fighting had been going on in the hills behind the town.

Only the hands of a lazy century had changed the town since it had been laid out by some military governor of the French days. Wide streets fronted with massive stone buildings, warehouses and rows of shops with residences over them. Grill work of iron, so pure that instead of rusting away it had taken on an age-polish which made it look like bronze. A dead place of mummified architecture where the natives — they were beginning to stir about now — stalked like listless dogs that had taken possession of a plague shriven town. The skipper, heeled by his snyly conch, was feasting his eyes on these things when a dapper emissary from the governor, a *brotheur journaliste* came up and said that we were expected at an audience in half an hour. Would monsieur and his man 'ave a drink?

We flowed into a nearby dram shop. Sweet smell of rum in the air and the tansy odor of negroes. Some of them were lying on the springy, ant-eaten floor. Among them were trussed logger-head turtles, on their backs. When one stepped on a native he grunted and drew up his legs. When one's foot encountered a turtle it gave forth a dry hiss. Great admiration was shown over the skipper's 38–40, evidently the largest in town. But that was nothing to the admiration in which the skipper suddenly found himself enshrined. For some one who had seen the skipper years ago cruising up the Lesser Antilles in his sailing canoe, presently exclaimed from the murky shadows, "Oh, mi, Fadder! *C'est l'homme de Yakaboo!*"

The fetich sound of *Yakaboo* tingled the assembled ears like a bit of obeah. The one from the shadows came forth, and clearing a space about him, began to orate. Behold a man who feared neither zombi, Devil, nor heat. The terrors of the sea were nothing to him. Was it a wonder that he sailed the wide seas in a schooner with only a wife and one hand? He could do anything. That pistol, now, it was only for putting eyes in shark's fins. The man had but to open his mouth and a curse would stay his dearest enemy. He, the orator, knew; for had he not seen with his own eyes this same man sailing alone in a canoe that was not much larger than the half of a *tambou?* The whites of bulging eyes seemed actually to light up the place.

Would we have some champagne? The champagne of Hayti?

"Bilge us," said the skipper, and a row of pints appeared like nine pins on the blackened counter — and went down again, almost at a strike. It was not bad, that stuff, almost like an apple cider but many hundred per cent better to the taste. Ah, but he was *bon garcon, ce* fellow *la* — he could drink like a thirsty mule!

But now it was time to call upon the governor. Up the broiling street, the skipper and the secretary, who was rather elated with the buoyancy of champagne which had cost him nothing; then the conch and the big fellow who had returned our papers with permission to remain in port for twenty-four hours; and for escort, the whaleboat's crew, by twos. And we marched right up to the muzzle of a cannon which pointed down the street from before the ancient mairie. Rammed a third full of powder, that cannon, the rest of its maw filled with all manner of bolts and nuts and spikes while a bent piece of rusty tin, tied down with a length of string, rode over the touch hole. A pantless guard with a hussar's blouse covering his top-sides and a shako mast-headed, brought an old smooth bore to present arms. Leaving our escort in latent danger before the cannon, we turned half-right up the wide stairs.

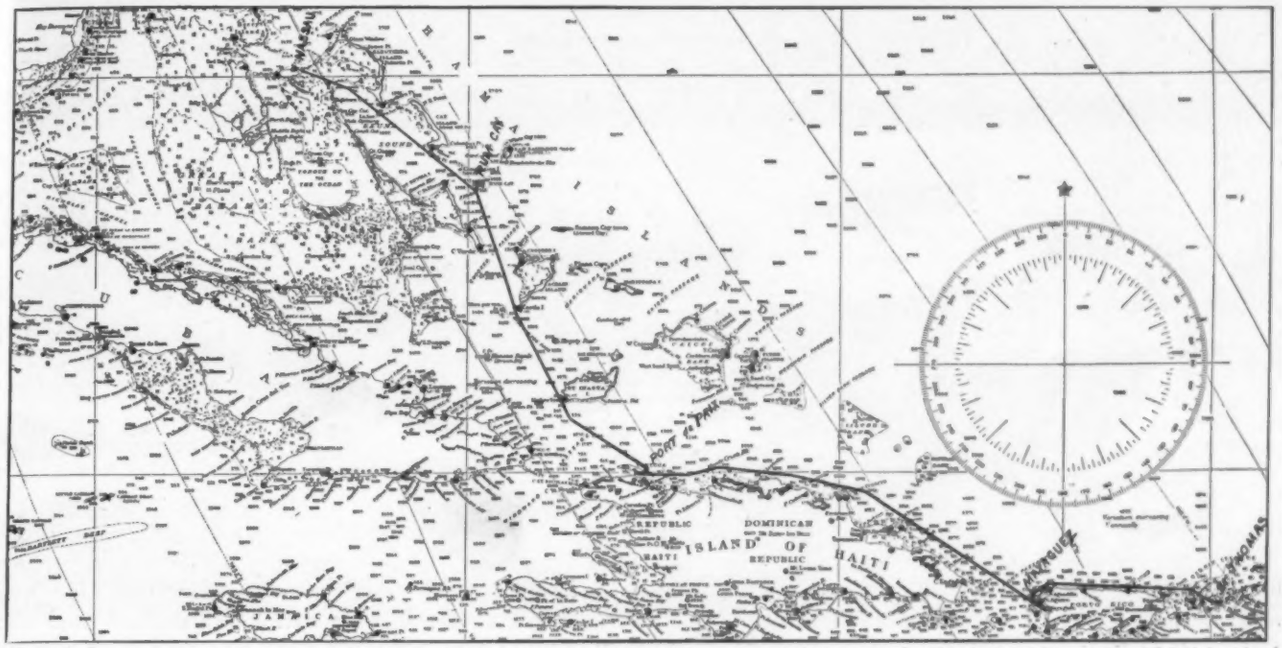
Behind a rickety kitchen table in a large bare walled room, sat the governor, a jaundice-hued mulatto in slippers and white and pink striped pajamas. He was occupied with a filthy set of smutty French stereoscopes. Flanking him were the members of his council and a fathom or two before the table was a semi-circle of folding chairs, some of them supporting prominent men of the town. We bowed and sat down. Presently the captain of the Italian bark came in with his mate. They bowed and sat down. The governor, who was just recovering from an attack of fever, reluctantly laid aside a particularly *choice* view and took up the skipper's letter — which he had not been able to read.

"*Maint'nan', capitain de Diablesse* — "

And the skipper plunged into the yarn of his cruise, in dog-eared French. It seemed to be going across, somehow, for the two Italians who knew no English, veered to port and smiled at times as though they understood. In time our history was flemished down to the very hour when we had rounded to and been boarded by the big fellow who now was closely questioned as to the number of our crew, our torn jib, and the possibility of our having any contraband aboard. The secretary, who all this time had been bursting to put in a word, then related the scene in the dram shop. And that had its effect, for all port dues were cancelled and we might remain as long as we wished. The town was ours, unless the rebels should take it.

Next the Italian who, becoming very red in the face from his exertions with a language in the deliverance of which he was almost as unfamiliar as the skipper, and sweating from the high water line of his tanned face down into his collar, bulled through his story and at last subsided in a rumble of Wop oaths which brought to mind east side fruit stands on a tempestuous day.

The governor, who had been sitting back the while,



Course of *Diablesse* in her long beat to windward from Nassau to St. Thomas.

removed the slipper from the foot of his crossed leg, slapped it twice upon the table, and returned it to his holy-stoned sole. A brace of natives in blue and white ticking came in with trays crowded with filthy tumblers and bottles of French vermouth. Full tumblers for us ship people and the governor's council, half tumblers for the rest, and we stood up and put down the tepid stuff to the health of all concerned. The audience was now over and as we trooped out the governor slumped down again to the perusal of his bawdy pictures.

Our return aboard was wellnigh melodramatic for all this time the poor Mate had been conjuring up all manner of treachery ashore! In the remaining daylight, and after tea, we worked on the jib which was at last bent on at midnight. The next morning the skipper took the Mate ashore to see and smell the town, and at noon we made sail.

If our runs from Ship Channel to Port de Paix had been strenuous — every mile on the wind with luffs a-tremble — they were but mere tryouts for the ding-dong beat which now lay before us along the north coast of Hayti and San Domingo. Too many evening parties in Nassau had nearly done for the Mate, and now Port de Paix with its anxieties of the afternoon before and the heat ashore in the morning, finished her for any work at the wheel except in an emergency. Although the winds are said to blow slightly on shore through the greater part of the day and offshore at night, we found, as is more usual along a high coast, that the wind rarely "blew home."

We were hardly out of the Tortuga channel — in Tierra Baja Roads — when towards evening a heavy squall came down from the wind's eye. A good chance, it seemed, for an all night leg offshore, and we were bowsing along with the rail well down when suddenly the squall trailed off to nothing, taking every vestige of wind with it. Our poor old coffee mill had died — its last death — just out of Nassau, and here we were off soundings in the trough of a high steep sea. We doused our headsails, hoping that a chance whisper high up might catch the peak of the mains'l and swing us off, and we ran out our anchors and chain for a possible drag, and eased the main boom into its crotch with handy billies set up on either side. Still we rolled, and the hooks in the silly blocks pulled out like hairpins. At last we lowered everything and lashed the boom to the counter while for five agonizing hours we wallowed in the wicked trough, taking a barrel of water over the rails at every roll. It seemed as though the sticks must be rolled right out of her. There was no sleeping it out below, and we sat in the cockpit and swore while our topmasts swung overhead through their inexorable arcs. That was a time to bless the stout lanyards which eased our shrouds to staying. Toward midnight the edge of the land breeze — it really followed the coast — began to frill the smooth tops of the swells, and hoisting away we stood in for the beach.

From now on we beat close along shore and used no lights. Fanning winds from sundown till well into the forenoon when the trade, ever blowing from the East, gave us something to put our forefoot into. We marked our progress by what landmarks we could recognize ashore. Up in the foothills the drifts of blue smoke from the charcoal pits were varied by whiter puffs from the rifles of the revolutionaries, whom we could make out through our glasses, when we stood close to the beach, moving in small bodies from one vantage ground to another, or retreating into the bush.

On the afternoon of the 21st of May we doubled Cape Haytien and that night ran afoul of the shoals and cays off Monti Christi Bay, which later we found were reported to be farther north than as shown on the chart. As we worked out in the morning we saw fighting, presumably between the Haytians and Dominicans, along the border. Fighting inshore all through the day — the Dominican revolution.

From Isabella — our Cape Stiff — the trend of the coast lay nearly two points to the south of East, and although the wind was inclined to follow it, we could make better progress in short and long hitches. On approaching Porta Plata, where we had planned to run in for fresh provisions, we were hove-to by a shot from the *Independencia*, whose officers ordered us to sail on as the port was blockaded and in a state of siege. And when we ran by the town we saw that it was being

(*Continued on page 76*)

Start of the Free-for-All at Palm Beach. Won by *Baby Cub*, owned by Howard Lyons. She is the second boat, the one in foreground being a Super Bear Cat.

Palm Beach Regatta Opens Racing Season

A Fine Fleet of Speedy Power Boats Make Interesting Racing

A THREE-DAY regatta held by the Palm Beach Yacht Club on the sheltered waters of Lake Worth, starting on February 22d, marked the opening of the 1925 motor boat racing season, all hands, including owners, drivers and spectators agreeing that it was a thoroughly successful event in every way. The races were held under sanction of the A. P. B. A. and the M. V. P. B. A., Commodore Alfred H. Wagg and his capable committee handling the different races in shipshape style throughout.

There were races for various kinds of power driven craft, from outboard motor boats to high powered express cruisers, sea sleds, hydroplanes and displacement runabouts. Interest centered in the snappy little 151 cu. in. hydroplanes, racing for the Royal Poinciana Trophy. After six strenuous heats in this class, Cliff Padgett's *Miss Quincy VII* emerged an easy winner with 1200 points, a perfect score. *Hadley-Plane* had 425 points, *Greased Lightning* 200, *Jay-I-See II* 177, the former champion *Margaret III* scoring only 176 points.

Harpooner came home a winner in a race for cruisers

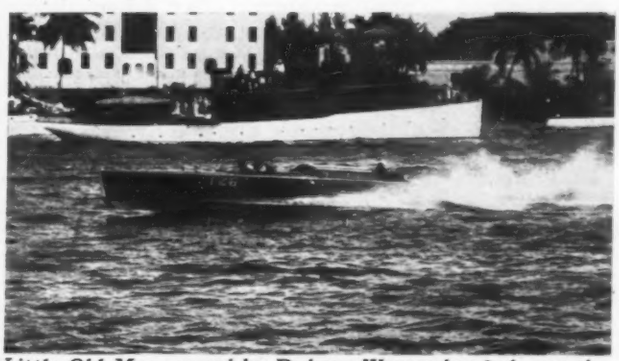
(*Continued on page 76*)

The dock and new clubhouse of the Palm Beach Yacht Club, off which the races were held.

Start of the final heat in the 151 Class at Palm Beach, *Myda* in the lead.

Miss Quincy, owned by Cliff Padgett, winner 151 Class.

Greased Lightning, owned by W. P. Bigelow, third in 151 Class.



Little Old Man, owned by Rodman Wanamaker 2nd, won the Bradley Gold Challenge Cup.

Gar Jr. II, owned by G. A. Wood, winner of Ocean Race for Express Cruisers.

Commodore Alfred H. Wagg, and Vice-Commodore H. P. Margerum of the Palm Beach Yacht Club.

Maggie, an able little day cruiser, owned by H. O. Ray, won the ocean race for semi-speed boats.

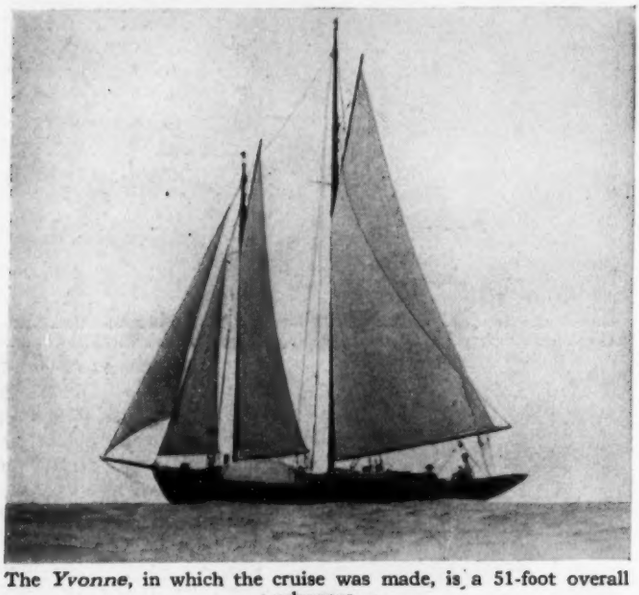
Pleasure and Science

Summer Cruising on Georges Bank and in the Gulf Stream to Collect Specimens of Ocean Life

By Richard Parmenter

ON a snowy night in the month of January 1920, I stood (with most of the population of the city, it seemed to me) outside of the closed door of the *Institut Océanographic* in Paris, waiting to get inside to hear a lecture entitled, "The Organization of a Scientific Expedition."

The size of that patient waiting mob depressed me. Were all Frenchmen embryonic oceanographers; or had they left cheerful firesides and ventured out into a vile night just because this was going to be a free lecture? I rather inclined to the latter view.



The *Yvonne*, in which the cruise was made, is a 51-foot overall schooner.

However, there they were in legion strength, and although I had arrived at that door at seven and the lecture was not scheduled to begin until eight, it was given without my presence; for I was one of a hundred or more who failed to make the grade after the doors were opened and the rush began.

So I never heard how a Scientific Expedition should be organized, and finally had to find it out more or less for myself. Of course there are almost as many kinds of scientific expeditions as there are sciences, but the deep-sea ones were the kind that had always gotten under my skin and made me want to kick over the office desk and bolt. But this is not going to be the author's autobiography and I shall not develop this theme further.

Suffice it for my story, that circumstances brought me back to this country and to Nantucket and thence to New York on a business trip, in the course of which I chanced to wander into a favorite second-hand book shop on 59th Street, where I came across a volume, entitled, *The Science of the Sea*, edited by G. Herbert Fowler, and published by E. P. Dutton & Co.

This precious book purported to be an elementary handbook of practical oceanography for travelers, sailors, and yachtsmen, addressed to those "who are willing to take observations, but fear that a lack of scientific training will render their work or their collections useless. Anyone who follows the lines here laid down," went on this cheery tome, "may feel certain that he is building a sound brick into the pyramid of human knowledge."

Running through the pages I came across pictures of tow-nets, trawls, thermometers, and the forms of many strange animals, while the headings on the pages were scarcely less exciting. "Floating animals," "bottom forms," "yacht equipment," "preservation of specimens," were a few of them. Never have I parted with seventy-five cents more cheerfully.

I rushed off to lunch with "Bill" Nutting and "Art" Hildebrand and showed them the treasure. Alas, "Bill" was a yachtsman, nothing more; but "Art" showed signs of interest — which deceived. I learned the reason when I saw the next number of a boating magazine — he had beaten me to it and done an article on my book!

I went back to Nantucket resolved that now at last I would have a scientific expedition of my own even if the ship had to be a rowboat. I had made friends with some of the people in the Fisheries Station at Wood's Hole and these kind folk gave me a tow-net with which to capture the floating organisms, or Plankton, as they are generically termed. My first haul was made on a dull, overcast April day with a cold northeaster cutting in across the harbor. I got an old window weight and about thirty feet of line, stropped my net just above the sinker, heaved them over, and rowed slowly back to the dock.

Never shall I forget the moment when I hauled that net in. My first scientific expedition was an accomplished fact! And what a catch! The bottle was alive with jelly-fish of every conceivable shape, ranging in size from half-dollars down to ones no larger than a pin head; but each and every one swimming madly about by means of the rhythmic contractions of its fragile body.

That was my introduction to practical oceanography and to a condition of which I, like most others, had been in ignorance; namely, the incredible volume and diversity of life in what we are prone to consider empty sea-water. For the tiny plants called Diatoms occur in such enormous quantities that it has been estimated that there are sometimes as many as a million such organisms to a liter of sea-water.

One of the fine silk nets in which the surface specimens were taken. These nets were about three feet in length. The specimens, or "sea soup," are shown in the small end.

The crew of the *Yvonne's* second expedition. E .W. Dickinson, Richard Parmenter (center), E. N. Cutler, M. T. Shaw, K. Rawson.

Deck of *Yvonne*, showing reel and gear for handling the nets in which the specimens were taken.

These Diatoms form the basis of all life in the seas, just as plants form the basis of life on the land; and as they are extremely sensitive to environmental changes, and these changes are largely brought about by the currents of the ocean, it will be seen that an accurate knowledge of these ocean currents is of great economic importance in forecasting the migrations of food fishes. For the tiny crustacean called Copepod will eat as many as twenty-five hundred Diatoms, and the Herring will make his meal off approximately fifty thousand Copepods. Thus better weather for Diatoms brings the price of fish down in New York and Boston.

I learned from my friends at the Fisheries Station that this side of the Atlantic had been woefully neglected as regards Plankton studies and that practically any observations made (provided they were accompanied by samples of the water and a temperature reading) could not help but be of value; so when Fate put me in the fine new Malabar-type auxiliary schooner *Yvonne*, then owned by Mr. F. H. Rawson, of Chicago, I made up my mind that our cruising would be something more than the usual pleasant but rather aimless journeying from place to place. The Fisheries Department gave us a set of nets, thermometers, water bottles, pickling fluid, etc., and we set out. But first a word about our ship.

The *Yvonne* measured 51 feet over all, by 42 feet on the water. She had 12 feet 4 inches beam and drew about 7½ feet with her tanks filled and her gear aboard. We carried two boats on deck; a semi-dory that I had purchased in Thomaston, where the schooner was built by Morse, and a double-ender, fourteen feet long, and built by Chaisson in Swampscott.

The regular crew consisted of an old Provincetown friend, E. W. Dickinson, who served as mate; the owner's young son, Kennett Rawson; Malcolm Shaw, a young man from Newburyport, who took care of the cooking and lent a hand on deck as well, and myself. In addition, we usually picked up some nautical friend for a fifth man if we were going any distance so that I would not be obliged to stand a regular watch, as the scientific work, plus the navigating of the ship, and the fiddling with the engine, took up most of my time.

I have certainly never seen a happier ship's company nor one that was easier to get along with. Our only regret was the shortness of our summer, as we did not get started until the middle of July and Mr. Dickinson's departure on September first put a stop to all but day trips. But while we were out we enjoyed ourselves to the utmost and I think that a study of the expressions in the photographs will bear me out in this.

And now a word about the procedure of taking observations: We confined ourselves almost entirely to surface work, only occasionally taking a drag at 40 or 50 fathoms, for the *Yvonne*, while good enough as a yacht, was not suited to the work in hand and could not handle the heavy gear necessary for deep-water work. So the trawls and deep-water thermometers had to be left at home and we devoted ourselves to hauls of the surface Plankton, with a water sample and temperature reading at each station, as it is called. We used for this purpose a No. 2 and No. 18 net made of silk and of the approved shape and having respectively about 60 and 160 meshes to the inch. The shape of these nets is well shown in the accompanying photograph. The dimensions of the affair are: diameter at large end, 1 foot; diameter at small end, 3 inches; length, 3 feet. The stations were taken roughly every twenty miles and the latitude and longitude of each determined by dead reckoning.

When ready to take a station, the ship was hove-to, usually by lowering the headsails and slacking off the mainsheet, while the foresail was hauled flat, and the helm put hard down. The nets were then streamed over the stern at the end of a 50-foot bight of line and towed for twenty minutes. During this time the thermometer was dropped over and a water sample taken in a clean and hermetically sealed bottle. By the time this had been done the nets were ready for hauling, which was done one at a time. As one came aboard it was shaken down so that the mass of "sea soup" would drop into the bottle at the small end; and the bottle was then detached and a little formalin added while stirring the contents. The sample was then labeled and stowed away and the other net hauled. In the meantime the regular Fisheries Record Book had been filled out with the meteorological observations required, and as soon as the nets had been rinsed the ship was put on her course once more. We got so expert that a station could be taken in about half an hour; although the ones that came at night usually took a little longer.

Most of the small organisms shun the bright light of day, retiring to the depth of a few fathoms and returning to the surface at evening, but the abundance of the marine population can be judged by the photograph showing the hauling in of a net. The dark mass at the small end is solid "sea soup," yet the haul was made from the surface on a bright day off Georges Bank. The hauls at night produced an incredible quantity of organisms; the nets often being half full when hauled.

Of course most of the animals caught in a Plankton net are small; many of them distinctly visible to the unaided eye, to be sure, but still not very large. The big things like the fish, squids, eels, etc., which are generically termed the Nekton, see the net coming through the water

(*Continued on page 80*)

Great Yachting Activity on the West Coast

An Unusually Interesting Season Planned with a 3800-Mile Ocean Race. The Star and R Classes Active

AN unusually active yachting season on the West Coast is forecast, and yacht owners are already making schedules for the summer's racing all the way from Vancouver to Southern California, while several new boats from the East will make their appearance in some of the events during the coming season.

All of the Southern California clubs have elected their flag officers for the ensuing year, and so also have the Southern California Yachting Association and the Pacific Coast Yachting Association. It is both interesting and gratifying to the racing men to know that racing skippers have been elected to fill nearly all of the important offices. Illustrative of this are the following:

In the California Yacht Club the Commodore is Ben P. Weston, who last season sailed the Class R boat *Debra* into the San Francisco Bay and Los Angeles Fleet Championships, and also participated in the International Star Class Championships. Paul E. Jeffers, a veteran racing man of the old South Coast and Los Angeles Yacht Clubs, is Vice Commodore.

The Los Angeles Yacht Club is headed by Commodore Douglas R. Radford, whose famous yawl *Sinbad* is one of the fastest on the coast. Its Vice Commodore is Rey Schauer, whose Star boat *Movie Star* took the Southern California Fleet Championship last season.

Catalina Island, the youngest of the Southern California yacht clubs, has on its staff experienced and active racing men in the persons of Commodore Charles Ramsey, and Vice Commodore Owen P. Churchill, former Pacific Coast Champion in the Star Class, and now the owner of the "R" boat *Angela*, which, under the ownership of "Syl" Spalding, twice captured first honors in her class.

The Newport Harbor Yacht Club will emphasize the Star Class particularly this season, as its Commodore is William C. Warmington, through whose efforts eight new Star boats are now being constructed to add to its already active fleet.

At San Diego, Commodore Alonzo Jessop is of a famous racing family, and at Santa Barbara their Commodore, Ludwig Hoefling, is himself a racing man.

On February 27th the delegates of all seven of the Southern California Yacht Clubs met with a full attendance and elected the following officers for the Southern California Yachting Association:

Admiral: Commodore B. P. Weston of the California Yacht Club.

Vice-Admiral: Staff Commodore Shirley E. Meserve of the Newport Harbor Y. C.

Rear Admiral: Commodore Ludwig Hoefling of the Santa Barbara Y. C.

Port Commander: Edwin Gourley, of Santa Barbara.

Fleet Commodore: Vice Commodore Rey Schauer, Los Angeles Y. C.

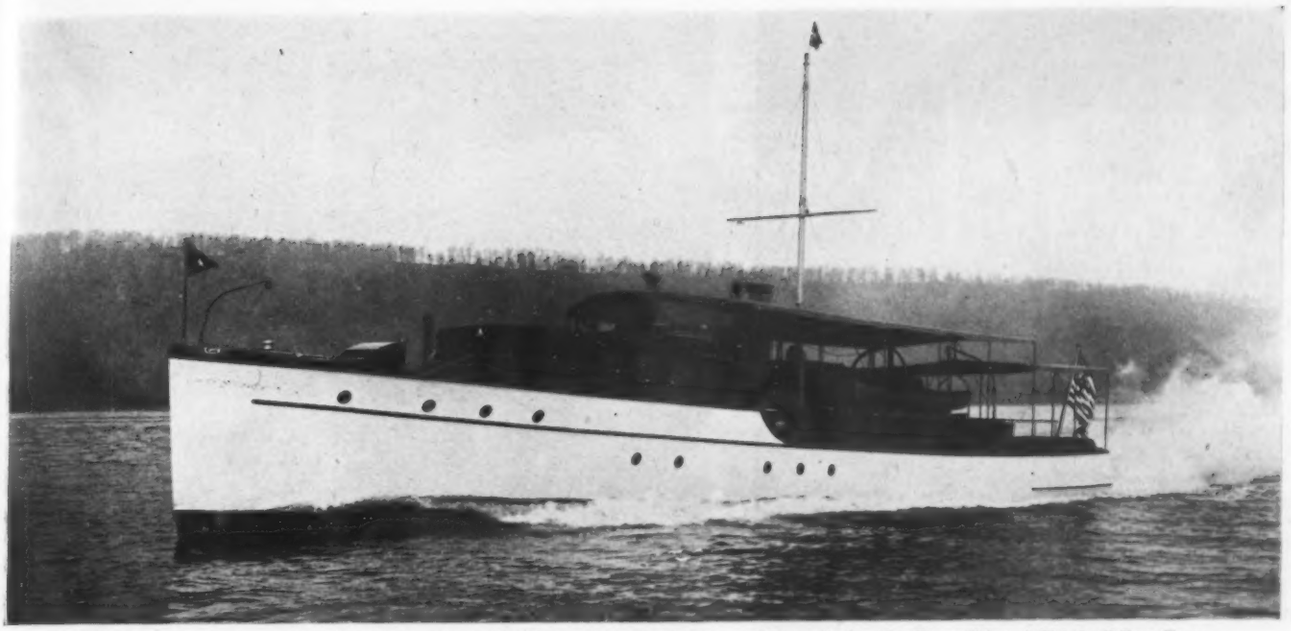
Secretary: John M. Langton, Los Angeles Y. C.

At this meeting it developed that some yachtsmen felt that the San Francisco-Tahiti ocean race and the Los Angeles-Honolulu "grind" were in the nature of competitive or rival events, and in order to eliminate any possibility of a misunderstanding in that regard it was decided to postpone the Honolulu race until 1926. This race, as originally handled by the old South Coast (now Los Angeles) Y. C., was held bi-annually on even numbered years, and the tradition of continuing it on the even numbered years was accorded some weight in determining to postpone the event heretofore scheduled for this year. This action also insures the success of the longer race, which already has six definite entries, and it is believed that the elimination of the Honolulu run for this year will add several more.

The Class R Sloop *Aloha*, owned by ex-Commodore George S. Gay, of the San Diego Yacht Club. She was designed by Edson B. Schock, and will be raced this summer.

The coming season will be something of a strenuous one for the active racing yachtsmen of this locality. On May 9th they will open the season with races off Los Angeles harbor. On May 29th, 30th and 31st they will sail the Catalina Island Yacht Club special races off Avalon. June 10th the larger boats leave San Francisco for their 3800-mile reach to Tahiti. July 1 to 5 will see "R" and Star Classes engaged in the Pacific Coast Championship battle, to be staged off Victoria, B. C. The southern yachtsmen will then drop back more than a thousand miles along the coast to participate in the Newport Harbor series, August 1 to 3, and on August 9th will again go north as far as Santa Barbara for the Southern California Yachting Association Regatta, from which meet the champion Star boat men of their respective fleets will have to depart, with barely enough time to cross the continent, for participation in the International Star Boat Championship Series on Long Island Sound the first week in September.

All in all it is going to be a busy year — one that will keep the racing and cruising men on the jump.



Hiawatha, **a fast power cruiser designed and built for J. B. Ford, Esq., of Detroit, by the Consolidated Shipbuilding Corp.**

Hiawatha, a Moderate-Sized Fast Power Cruiser

A FINE example of the recent development of the moderate-sized fast cruiser is the *Hiawatha*, designed and built by the Consolidated Shipbuilding Corporation, for Mr. J. B. Ford, of Detroit, Mich. *Hiawatha* was finished late in the autumn, and early in the winter left for Florida. She is such an ideal type for both northern and southern cruising that the designers have called her a "North and South Cruiser."

The deck dining room of *Hiawatha* is unusually attractive and handsomely finished.

A corner of the deckhouse living room of the *Hiawatha*.

The engine room, with its two 300 h.p. Speedway Motors, is carefully laid out.

Hiawatha's dimensions are: l.o.a. 85 feet, beam, 15 feet, draft, 3 feet 6 inches. She is of the raised deck type with a sunken deckhouse which makes a very pleasing profile, and a trunk cabin aft, followed by a good sized cockpit. The general design is characteristic of the Consolidated cruisers. The power plant consists of two Speedway motors developing 300 h.p. each. These are located amidships and give the boat an easy cruising speed of 18 miles per hour, with something better than 22 miles when they are wide open.

The owner's quarters are aft and contain four staterooms and two bath rooms located under the trunk cabin, with an entrance from the cockpit. The deckhouse is used as a dining saloon and is very beautifully finished in mahogany, with a great deal of thought on the detail of design and interior decorations. The crew's quarters are forward.

This is the second yacht of the same name that Mr. Ford has owned, the first being a steam yacht 170 feet in length, built back in 1897.

Solving Your Engine Installation Problems

The Exhaust Line

By Dwight S. Simpson, M. E.

IT is more difficult to make a satisfactory job of the exhaust line than any other part of an auxiliary engine installation, because we have a direct opening into the cylinders and the cylinders are usually below the water line. At the least, it is decidedly inconvenient to find the cylinders full of salt water — or even fresh water. It is, however, a not unusual occurrence, and our problem is to reduce the possibility to a minimum.

In a commercial vessel, or a fisherman, we can bring the pipe up on deck or run it straight up in the air, but these are unsightly and, therefore, not "yachty" methods.

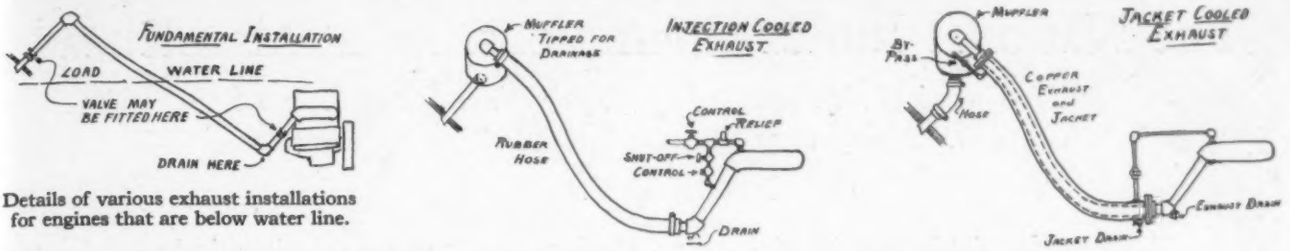
If we were quite sure that the engine would never be used except in a calm, we could run the exhaust overboard at the most convenient point, fit a valve close to the skin and let it go at that, but as we will find more uses for the engine, a more versatile installation is required.

A simple method is to install a pipe clear through athwartships, opening on both sides of the vessel, and fitting valves so as to shut off either one side or the other. While this system is most advantageous for the engine, it is quite otherwise for the passengers, as the windward end, being well out of water, is always the open end and the exhaust fumes invariably blow right across the cockpit.

For passenger-comfort the one place for the exhaust outlet is under the stern and it is, of course, the most difficult place to run it. When the engine is not running, we can always close it off with a valve at one end or the other of the exhaust line (not forgetting to open it before we start the engine). But even with the engine running the end of the line is apt to be buried once in a while, so it is necessary to get some part of our pipe as high as possible above the water and to have some part below the engine manifold to form a trap and drain. That is to say, our fundamental layout will look like the accompanying sketch.

It is not *au fait* these days to have a pop-pop-popping exhaust, therefore a muffler is indicated, and the proper place for it, provided it is physically possible to get it there, is at the highest point in the line. Then cooling water put into the muffler can drain overboard through the exhaust pipe, and water forced up from outside will find in the muffler an expansion tank and will generally drain back overboard, harmlessly.

With a long line leading off, it is of course necessary to cool it and the simplest way is runabout fashion, by turning a small part of the circulation into the exhaust close to the engine, but below the manifold. With water in the line we can use a heavy steam hose or the Edson wire inserted hose made especially for the purpose, and pipe fitting is reduced to the minimum. Fit up the muffler



Details of various exhaust installations for engines that are below water line.

close to the outlet as one unit. Then fit a pipe from the manifold down to an elbow at the low point where a drain plug is put in. The rubber hose can then be wriggled into place to complete the line.

The circulating water can be piped overboard at the most convenient place (preferably above water where it can be seen) and a bypass of ¼" or ⅜" pipe tapped into the exhaust line just below the manifold. Both bypass and main discharge should be fitted with valves to control the flow.

This system is fairly immune from flooding but it has one disadvantage, and that is the factor of the memory of the operator. It is desirable to shut off the circulating water from the exhaust before the engine is stopped so that the pipe can be dried out. This makes it imperative to remember to turn on the water again after starting the engine. The smell of burned rubber is generally a reminder, though a tardy one, that this has not been done.

In view of the turning off and on of the cooling water it is useful to fit another valve in order to prevent the necessity of constant adjustment for the proper quantity of water. The second valve should have the handle removed, or it may be of the steam cock type, so that once proper adjustment is achieved it will not be turned by mistake.

A relief valve is also desirable to guard against disaster in case both branches of the circulating water discharge are closed at the same time.

To clear the one difficulty of this layout, and still have a cool exhaust line, we must make use of the jacketed pipe, and as this calls for the services of an expert, I will not describe it in detail, except to note that it is usually made of copper, and consists of an inner tube of the proper size for the engine exhaust, and an outer or jacket tube of from ¾" to 1" larger diameter. The two pipes are bent to shape, one within the other and then the ends of the jacket closed with brass rings welded in, and the whole fitted with flanges to take the rest of the piping.

The whole of the circulating water is turned into the jacket at the engine end and bypassed from the other end into the muffler, beyond the high point so that it will drain overboard and not back into the engine. In addition to the drain from the exhaust pipe proper, the jacket should also have a drain at its lowest point.

This jacketed pipe takes the place of the rubber hose in the previously described installation, but to do away with vibration and prevent damage from expansion we should now fit a short length of hose between the muffler and the outlet.

While these two systems are quite free from flooding, if the high point is well up, we can make assurance doubly sure by fitting a valve at one end or the other of the line — the outer end if it is easily reached, but the engine end will do nearly as well. In the latter case it is wise to try the drain before opening the valve. Valves for this purpose should be either gate valve or round-way cocks as these give an unobstructed passage when open.

Check or flap valves have proved unsatisfactory as, due doubtless to the motion of the ship, they do not keep the water out and they are likely to cause back pressure when the engine is running.

The Vacuum Tank

The vacuum tank has again been brought to my attention as a bit unsatisfactory for marine work. I think it was "Sandy" Moffat who once said that the vacuum tank makes a fine governor, which is to say that it works well at medium speeds, but at low speed there is not suction enough to make the gas flow and at high speeds the gas does not come fast enough. In either case the tank goes empty and then — Gosh, I tried to fill one last summer. It took a wrench, a pair of pliers, a spoon, a piece of rubber tube, a funnel and a bottle. No, not that kind of a bottle either.

True, they work well in an auto, but the auto engine is rarely called on to run at full power for more than a few moments at a time and the moment it slows down the gears are shifted to speed it up again.

If for any reason you must carry the gasoline tanks below the engine, pressure must be used to get the flow, or better, pump to a small gravity tank, having an overflow of generous size leading back to the main tank.

For the "Doctor"

If permitted, I will wander for a moment from the engine room into that other mechanical division, the galley, and reproduce here a sketch from the advertising pages of *Die Yacht*, which proves that not all the bright manufacturers are on this side of the water.

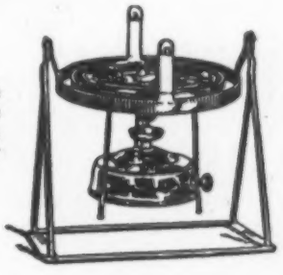
Two or three years ago, I showed in *Sea Chest* a stove hung in gimbals, or rather half gimbals. Doubtless no one noticed it, as it was one of the few items in that ship uncriticised. Our British friends have long used such a contrivance, but so far I have not run across one in our waters.

On a small boat it should be a particularly useful contrivance, as one can keep the pot boiling without everlastingly holding it in place, or having it slop over.

With the help of the sketch any handy member of the crew can connect the apparatus. It is only necessary to keep the pivots high, so that stove and pots swing somewhat like a pendulum. Thwartships of course, no provision for pitch seems necessary.

* * * *

When oil stoves are used it is unusual to find a means of ventilation provided in the galley, following, I suppose, the kitchenette architecture of most small apartments. Matters below can be much improved, especially in wet weather, if a small water deck iron and Liverpool head be fitted directly over the stove. This will largely prevent reminders of last Sunday's meals.



A simple stand for a Primus kerosene stove hung in gimbals, to keep the pots and pans level when under way. It is convenient, practical and easily built.

The National Junior Championships at Marblehead

The Growth of the Plan for Junior Racing Has Spread Since 1921, Until Nearly Every Yachting Center Is Now Represented

By WILLIAM U. SWAN

AS THE hope of yachting is the vision of the young, it is not surprising that one of the outstanding features of the sport is the Junior Championship, which this year will be an event of national importance.

When the proposition for the establishment of a yachting tournament for boys and girls under 18 years of age, to be sailed on the somewhat unique plan of having the crews change boats after each race, was first presented in 1921, the Eastern Yacht Club, which launched the Massachusetts Junior Yacht Championship with a cup offered by Commodore Herbert M. Sears, offered to the visiting teams, three Alden one-designed 16-foot knockabouts, lapstreaked and somewhat low sided, and the matches were run off in trios of crews. The fairness of the test by swapping boats was of course obvious, and the winning of this event at once became the highest ambition of every Massachusetts boy or girl with any knowledge of boat sailing.

With commendable foresight, Commodore Sears inserted in the deed of gift of the championship cup, a provision that while the event was open to recognized yacht clubs on Massachusetts tidal waters, the regatta committee of the Eastern Yacht Club might invite clubs outside the state to participate.

It was not surprising therefore that in 1922 three Long Island clubs, Larchmont, Seawanhaka-Corinthian and Cedarhurst should be represented at Marblehead, and it helped a lot when the Larchmont boys placed the custody of the Sears Cup in the hands of that hearty young yachtsman, Commodore James B. Ford, of the Larchmont Yacht Club.

But despite the fact that young Knapp had shown unquestioned ability as a skipper in 1922, and came back with the same crew, he was put out in the first round of the 1923 championship and the Duxbury boys, headed by another clever young tar, Raymond Hunt, carried the cup across the Bay to Pilgrimland. For the 1923 Junior Championship the Eastern Yacht Club built three new 16-foot knockabouts, short ended, but more seaworthy than the first trio, a trifle larger and with somewhat more sail than the Marblehead "O" boat. These boats were designed by Alden and built by Chaisson, at Swampscott, and while they were primarily for use in the Junior Championship, they proved a source of revenue for the Eastern Yacht Club for renting purposes for afternoon sailing.

The 1924 Junior Championship brought seventeen crews and fifty-one youngsters to Marblehead, including the Bayside and Cedarhurst crews, the champion and runners-up in the Long Island title event, and the Conanicut crew, the champions of Narragansett Bay. Again Duxbury, with the same skipper at the helm, reached the finals, but lost in two out of three hard-fought races to the crew of the Pleon Yacht Club, the oldest juvenile organization in the country, the trio being headed by Harry B. Thayer. This gave the Pleon Yacht Club two legs on the Sears Cup.

It became increasingly evident that the original plan of having the matches sailed in three boats was not only impracticable but unfair, numerous instances cropping out in which two acknowledged able crews became involved in luffing matches, thus allowing a third, and perhaps inferior crew, to slip into the lead and win. It was also found that the event as an open affair had reached the limit of capacity and that a reduction must be made in the number of competitors. The Eastern Yacht Club regatta committee was therefore very much gratified when the Massachusetts clubs interested in the Junior Championship agreed to hold elimination races, and voluntarily divided the State into three districts, the Buzzard's Bay section, the South Shore and the North Shore of Massachusetts Bay, and clubs were found willing to take charge of these section events.

So this year at Marblehead the survivors of the elimination events in the three Massachusetts sections, the two leading crews in the Long Island Championship, the winner of the Rhode Island title and a crew from Canada, probably from either the Royal St. Lawrence or the Royal Canadian Yacht Club, will meet for the Sears Cup. There is a possibility that Maine may send the eighth crew. Of course, it is only a question of time before the Junior Championship idea is adopted on the Great Lakes, on the Pacific coast and possibly in the South, but Marblehead will always be the scene of the finals.

The Long Island Junior Yacht Championship in which eleven of the Long Island Sound clubs will participate will be held this year at Stamford, probably during the first week in August, and is likely to be sailed in Star boats. The event will also be run off in matches, for pairs of crews, instead of trios as was the case at Southport last year. Stamford is preparing to give the boys and girls a lively week of hard racing, with some social events thrown in for good measure. Edward E. Scoville is again in command of the Stamford station with William F. Gillespie as executive officer and Col. Robert H. Patterson as secretary. Daniel H. Cox is president and Hugh M. Wharton secretary of the Long Island Junior Association, which has the heartiest approval and encouragement of the senior organization and President Clifford D. Mallory.

The Conanicut Yacht Club, at Jamestown, R. I., will stage the Rhode Island Junior title event, also early in August. Last year the first of these affairs in Narragansett Bay was held at Bristol and nearly every active yachting organization on the bay was represented. The Conanicut boys, who won, will endeavor to defend their title and go on to Marblehead. The Conanicut Yacht Club will probably offer its Alden one-design 16-foot knockabouts for the races.

The Beverly Yacht Club, the most active yachting organization on the southeastern New England coast, will have charge of the Buzzard's Bay junior eliminations, probably using its Herreshoff 15-footers. The matches will be sailed off Marion about August 1. It is expected that the eliminations will bring crews from New Bedford, Edgartown, Nantucket, Wianno, Chatham and Orleans, and possibly from Quisset and Cotuit.

The South Shore junior races will be held at Cohasset in the well known "O" boats, similar to those at Marblehead. The chairman of the regatta committee of the Cohasset Yacht Club is Gen. Hugh Bancroft, whose daughter, Miss Jessie Bancroft, has been in three junior championships, and is still eligible for the event this year. She is one of the cleverest women skippers of the younger

(*Continued on page 84*)

Spun Yarn

Further Moralizings of an Old Windjammer on the Ways of Yesterday and Today at Sea

By Arthur Mason

TO me the charm of the ocean lies in the wildness of it. The stretches of calm gray, smooth above, almost invariably sullen underneath, were always hard to bear. Today we are crossing the Gulf of Tehuantepec in the freighter *Santa Olivia*, and the land, like scud boring into the blue, has disappeared. The sea and sky look as though they had been soldered together. Lonesome, I call it, for the man with the tarry hands and the sunburned face, and so it was thirty years ago, and sullen too, ready for sudden and violent rages that destroyed what not of ships and men.

We were bound through it, then, on a five-masted, bald-headed fore-and-after for the port of Salina Cruz. The ocean, like today, simmered in gentle bubbles, and little waves, like live things, trotted ahead of a gentle breeze. The Captain of the baldheader, an old fellow with sandy gray whiskers, remarked, as he tumbled a mug of port wine down his throat, perpetuating as he did so his gaping mouth into a yawn,

"We make a fine trip, this time."

The mate, in whose nostrils the icy airs of the North Sea had blown for fifty years, answered cordially, "Ya, we do."

And then, almost before their own statements had time to chill in their own ears, there came blowing out of nowhere, hustling shipping to confusion if not total destruction, a Norther, shooting down the gulf, sparing neither the waves nor the canvas of unwary ships. Like tatters the foam and spray switched out of the fabric of the waters, and foam-like and tattered the canvas of the baldheader flew to the four winds of heaven.

"Put the wheel in beckets and we'll all take a drink."

Then the seas lashed her with flail-like fierceness, and while eight of us tried to smother the few flying ribbons of canvas that still clung to the booms, the old Captain, without thought of ship or crew, stood on the poop wailing the loss of his canvas, and damning the whistling howler from the North as though the north wind were a person, and a personal enemy of his own.

"Jiminy Crist," he moaned, "what will I say to my owners, heh, what will I say?"

Truly he had his problem, how to coddle the narrow-lipped owners out of four thousand dollars for a new suit of sails. It was a thought to stagger anyone, and the blowing spray in his eyes did not disturb his fiery question to the Norther. He could hear the owners ask him, "How about your barometer? Did you not know there was a gale coming? Why did you hold on till you lost all your sails? The last Captain we had on her never lost a sail from the day he joined her until he was washed overboard five years later. Then it was only a jib. Where do you think we get our money from with freights as low as they are?"

These thoughts jolted him as the waves did the ship. At last, in desperation, he emptied another mug of wine down to join the last one, his face grew red, and he shouted:

"Let her go to Hell; put the wheel in beckets and we'll all take a drink!"

We did; and yet in all that gale with its upsetting attacks from everywhere, each sailor managed his mug so that not a drop of the warm red wine blew into the wind. Ah, it was too precious to be flighty with! The steady hand, the balanced body, the straddled legs, the guggle, guggle of the wine, and the next son of the sea took his place and held the mug, while the Old Man tipped the jug. Then with sparkling eyes and a song on the tip of our tongues, we rigged the baldheader with storm trisails, and rode out the norther — and a week later we made the port, discharged our cargo, and sailed back with makeshift sails to hostile owners.

The days of owners have changed, it seems to me, much as have the days of ship-structure. No more the harassed, hard-headed human men with whom a master had personal relations at least; no more the feeling of responsibility to a person the changing expressions of whose face, the varied intonations of whose voice, you know as well as you did that of the pipe that wheezed between his lips. No more knockdown arguments, desperate efforts to please, sharp words and hard-won praise. No more stinting in expected places, and liberality in unexpected. Why, I have known a Captain to win a suit of sails with the gift of a conch shell; and who shall say it was not worth money to the owner in the end to so childishly capitulate? And to the Captain whose heart was really in his work was there not reward in having his owner out himself, night after night, watching for a delayed ship, sending news to the family, then giving him the rare word of praise, and the bonus check for an amount that meant profit?

When the East India Company dissolved, although there was no prior agreement with its servants, and for the time of their service they had not only been well-treated and paid but had also had the opportunity to make considerable money trading, nevertheless each employee who had served five years was given a bonus, masters fifteen hundred pounds bonus, and those who had served ten years even to the humblest, a pension for life.

Nowadays, perhaps because the world has grown so large that the commanders and servants of steel ships are deprived of their tacking, and wearing, too, they are no more than scheduled items of a huge payroll, mechanically ordered, seldom pensioned, and never — almost never — specially recognized, except in a routine way. The efficiency man takes their complaints, and the owner is no longer able to leave the limitations of his hierarchical apex to really interest himself in them. Small economies gall them. I am told that one concern is actually contemplating depriving its officers of their afternoon tea. Personal interest is a routine affair limited by obedience to printed orders, sobriety, and adherence to schedule.

I don't understand it very well, and I suppose that to most of them the sure protection that they have against bad treatment, which we didn't have in the old days, looks good. Nevertheless I am glad that I was a sailing-ship man.

* * * *

One time, on reaching San Francisco, I made up my mind to cut out the square-riggers for awhile. The truth was that I wanted to fatten up a bit. It was said that "hotel food" was being served on coasters, and I was sick of hardtack and limejuice, anyway. So I shipped on a two-masted schooner bound north for lumber.

The food was indeed everything that food should be. Imagine ham and eggs for breakfast, good coffee, and loaf bread for every meal! Why, I stretched and grew visibly! Never again was I going to set foot on a square-rigger, where the smell of Stockholm tar created an appetite that could find nothing but Liverpool hardtack to gnaw upon, and not even enough of that to take the edge off a sailor's sharp teeth.

Well, we loaded our lumber all right, and sailed away from Puget Sound, bound south to a California port. Our cook was a one-legged man, and he liked port wine so well that he carried a small barrel of it in his tiny room just off the galley.

Two days before we got down to Redondo he drank more than he should have for the comfort of the crew. The result was that he went out of commission by tipping a pot of boiling water over his only foot. Oaths flew as the blisters rose, and we dressed his foot and put him into his bunk in the midst of his angry groans, as the Captain added to his miseries by having his barrel of port rolled aft into the cabin.

The cook was sick, and no mistake; I for one was sorry for him. Perhaps a selfish sorrow, for there was no more pea soup for us of a consistency to hold up a spoon, and the barnacled sailor who took his place knew no more about preparing food than I did. There were two days of his régime before we made port.

When we dropped the anchor the wind was out of the northwest, and blowing hard. Towards evening a heavy sea came racing in. As night set in the seas grew dangerously worse, and the long sandy beach was alive with foam. At about ten o'clock I made my way aft and had a look-in at the cook. He was strapping on his cork leg.

"It looks," he said, "as though I'd be wearing this somewhere to float me before long."

I agreed with him, and cursed the day that ever I set foot on a coaster. The cook fumbled under his pillow.

"Here," said he, and he held out five twenty-dollar gold pieces. "If I don't get ashore this will help you, but if I should get ashore you'll give it back, heh?"

"Certainly," I said, and I looked at that old cook and wondered. There was no fear in his eyes. When the schooner bumped the bottom, and the topmasts snapped out of her, he swore at his blistered foot, and then shook me by the hand.

"Hold on to that money, now, young fellow. It's a go, is it? You understand?"

I was so frightened that I did not answer, but made for the deck where I passed swearing men. In that mad darkness I was whipped over the side as though by the will of some cruel master, and found myself choking and struggling among the breakers. Then I felt myself being dragged up the beach, and heard strange voices congratulating me upon being alive. And except for having swallowed a portion of Old Ocean I was all right.

One by one the crew were washed ashore, some of them more dead than alive. Up to daylight the cook had not yet appeared, and was given up for lost. I felt of the money in my pocket; wet and clammy it felt, as if it were soaking in the tears of a dead man.

But with the first light of a new day a shout went up from the watchers on the beach: "There he comes, there he comes!"

All eyes swung seaward, and surely enough the cook was coming. Somehow he had his cork leg warped under him, and he bobbed up and down like an empty demijohn. When he struck the sand willing hands pulled him away from the undertow. Then he singled me out in the gray of the dawn.

"Come across with that money," he said, and quite as if nothing had happened I handed him the gold.

Three days later I shipped on a three-skysail-yarder bound for Australia, back to happiness and — hunger. The Captain of that ship loved to eat apples and crunch them in the ear of the helmsman.

"You like apples?" he'd ask. "Well, take this forrard with you when you leave the wheel," and he would lay the core of the apple on the wheel box, with only the stem and a few black seeds sticking up.

* * * *

The afternoon is commencing to wane as I sit in the deck chair as the *Santa Olivia* thrashes her way northward. The sun-rays, attenuated and very warm and golden search out the bones of one, and bake one's spirit in a life-restoring warmth. Not content with feeling my own blood respond to the kindly stimulus with a rush, I would wish transported here all the old crippled, blinded, doting sailors of the seven seas who wear away the long shore days until the end, wishing that they had shared the good fortune of some younger comrade who found a grave at sea. I would let them stretch their souls in this uninterrupted sunny air, and I should revel in their joy. Oh what a change from city streets, and how thankful I am, even at the half century age, for this perfect freedom!

News came to me just now of one who, queerly oppressed somehow, saw nothing of the beauty of the opportunity and hastened away. The China boy brought my afternoon tea, for this is a ship where "tealessness" has not yet come to pass.

"You like hear someting," he chirruped, excitedly.

"Yes, Sing, what is it?"

"You sabbe Philippine boy?"

"Yes."

"Well, he no more."

His eyes raked the horizon; then he pointed astern of the steamer where churned waters frothed angrily, forbiddingly.

Just then the Captain showed up.

"Yes," he said, "the Filipino boy jumped overboard this noon while the men were eating. He is somewhere back there."

"With all the rest, do you think?"

"I doubt it. Rough as they were, they were too good for him."

"He may have suffered."

"Possibly, but — well, he never did his duty. THEY did, you know."

Left alone again I thought of the Filipino boy, whom I had seen that morning. He had looked just like his mates; a salutation, expressionless, had passed his lips. All that time he was suffering. Suppose everyone showed their sufferings, how many of us would get relief? Yes, but would it be worth it? It seemed best to contemplate the varicolored sea, to trace thin ribbons of cloud across the sky, — and, my pipe went out.

Then, more cheerfully, my mind shimmied away across the years, back to an old wooden full-rigged ship.

(*Continued on page 74*)

Eaglet

A Small Auxiliary Whose Design Was Prompted by a Desire for Certain Qualities Not Always Found in Small Cruisers

By Samuel Wetherill

A FEW years ago I owned the semi-Block Island type schooner *West Island*, about which I wrote an article in the June number of YACHTING. *West Island* had her faults. She also had a lot of good points. And immediately after disposing of her I began dreaming away the idle moments in forming mental photographs of the little ship I would build some day — a small cruiser combining the good points of *West Island* with features I had found desirable in other craft I had cruised in and read about.

I meditated over my dream ship at odd times for nearly two years, until finally one evening, while enjoying an after dinner smoke in the snug cabin of *Malabar IV*, as the good ship swung quietly at anchor in Lloyd's Harbor, I couldn't hold in any longer. John Alden was dozing peacefully on the starboard bunk. I pounded the table to get his attention, and then—

"Listen a minute, John, will you? I want you to draw me a boat. A good, husky cruiser that'll be a fair sailer, about 32 feet long. Make her a double-ender, but cut a slice off the stern and hang the rudder outdoors. Suit yourself about the bow. Don't care what the draft is, but want headroom. And make her a jib-headed ketch."

Now, in case you don't know it already, John is a marvel at sketching any kind of a craft, from a Gloucesterman to a battleship. He doesn't need a draftsman's elaborate equipment — any old kind of a pencil, plus the back of an envelope, the stub of a checkbook, or the front of a hard boiled shirt will do, and truly marvelous, lifelike hookers appear in the twinkling of an eye. I have an idea he could do it in his sleep. In this instance, at least, he was only half awake as he started sketching away on the flyleaf of an azimuth book which was a memento of the 1923 Bermuda Race. And in less time than it takes to tell, there appeared the profile, midship section, and sail plan of a boat which hit me right between the eyes. She was exactly what I had in mind — only better!

And that was how *Eaglet* was conceived. The plans, with some modifications, were completed in a month or so, and show *Eaglet* to be 32′ 8″ over all, 27′ 8″ waterline, 9′ 6″ beam, 5′ 4″ draft, with a displacement of 20,500 lbs., and a jib-headed ketch rig of 650 sq. ft. I proceeded to get a few estimates. What with the resultant case of heart attack, and the lateness of the season, the hatching was delayed a year. But late last fall I ran afoul of "Bill" Deed, who had just taken over a yacht yard at Nyack, N. Y. After several consultations, and much figuring, "Bill" allowed he could build her within my figure. So, while *Eaglet* is slowly being incubated in "Bill's" yard, lets give the plans the once-over, and find out the whys and wherefores of the various features of her design. The lines and sail plan will be enough for this issue, and we can take up the four-berth cabin plan, construction plan, motor installation and other details in the May number.

As I hinted before, the idea in designing *Eaglet* was to get a rugged, able cruiser with reasonable cruising speed, which would berth four people comfortably on coastwise cruises. She must be stiff, and easily handled by one person upon occasion. She must have full headroom, an honest-to-goodness galley, plenty of stowage room. In other words, a really able, comfortable boat in which from one to four people could go off for a cruise of a day or a week, in Long Island Sound or around Cape Cod, and give her crew a minimum of work and a maximum of pleasure.

The sail plan of the auxiliary cruising ketch *Eaglet*.

As I mentioned before, the hull started in to be a "sawed-off" double-ender, with the stern becoming a bit modified as the design progressed. I have more than a suspicion that a boat whose after lines are in close harmony with her bow lines is a much better steerer than a craft with unbalanced bow and stern, and an inspection of *Eaglet's* lines will show that while she certainly isn't a double-ender, still her waterlines aft are fine, and she has the deep after sections characteristic of the real double-ender, the latter feature giving a lot of room not found in boats with a long, flat run. Her beam of 9′ 6″ is about average, and in combination with the hard bilge and the 6000 lb. iron keel, she should "keep her feet" well, and not have her crew hanging on by their eye teeth every time it breezes a bit. The sheer is lively, and with an easy entrance, good flare and ample freeboard, she should be dry in sloppy weather. The waterlines and diagonals seem to me to be remarkably easy and fair for a chunky cruiser, though the buttocks aft will not allow of any great speed, no matter how hard it blows, nor how well she carries her sail. The long and ample lateral plane should make for steady steering and "hanging on" ability in a seaway, and the straight keel will make beaching for scrubbing and painting an easy matter.

The ketch sail plan is sure to come in for a lot of criticism. Yes, I know it has the reputation of being a slow rig. But is it? Most ketches I know of would be slow with *any* rig — they're that type of boat. But leaving the question of speed aside, the other objection, as applied to *Eaglet*, is

that the position of the mizzenmast prevents installing the motor as far aft as I should like to have it. Perhaps there will be a few other kicks. But despite all theoretical and practical objections, *Eaglet* will have a ketch rig. And here's why.

In the first place the ketch rig seems to be inherently balanced. After long investigation, I failed to find a ketch-rigged yacht which would not steer herself with the helm lashed. Among notable self-steerers which I investigated are Nutting's *Typhoon*, Hobart Ford's *Cynosure*, Dr. Nietsch's *Sea Call*, and Gordon Prince's *Anna A*. Schooners and sloops seldom, if ever, steer themselves. Yawls sometimes do — on some courses. But ketches always do, so far as I can learn. And as I consider good steering qualities one of the fundamental requirements of a comfortable cruiser, I naturally demanded the ketch rig. With it, and the long, straight keel, *Eaglet* will be a fine steering boat on any course and under any conditions — or I'll be deeply disappointed.

Besides steering qualities, I believe the ketch rig gives a fine combination of sails for shortening down in a blow with the least expenditure of effort. In case of a squall, the mainsail can be dropped, and the boat sailed through it under jib and mizzen. For a strong breeze, a reef in the main is an easy matter, with only a 15-foot main boom, the sail in the middle of the boat, and the jib and mizzen to carry you along while you're reefing. Then, of course, she'll sail under jib and mizzen alone, or under mainsail alone — there's area enough either way to make her sail and handle well in heavy weather. Altogether, she should handle easily and well in any of our summer coastwise blows, barring such a tempest as descended upon us the 26th of last August. In case of a storm like that one, the safest thing to do would be to get an anchor chain ashore, twine it around the largest available tree trunk, and hope for the best.

Having explained my affinity for the ketch rig, a word about the jib-headed sails is in order. The jib-header has yet to thoroughly prove itself on cruisers. On paper, you do away with the curse of gaffs, and greatly simplify your running rigging and gear. But on a ketch, any gain in efficiency over a gaff-header is more than offset by the loss of area. So what I am hoping for — yes, I may say expect — is the ease and convenience of only one halliard per sail, fewer blocks, no gaff to bang me on the bean — and no worry about possible trouble with gaff jaws. To be sure, the mainsail is pretty narrow, and the "sharks" will probably claim the sail won't hold its shape. Well, I believe these "sharks" have another guess coming and that a narrow sail will stand up. Anyhow, I'm going to try it. The sails will be of 10 oz. Wamsutta duck, by Ratsey & Lapthorn.

Another objection to jib-headed sails is the necessity of using a track, which, on some boats, has caused trouble, the sail slides having a tendency to stick, especially when you want to lower away with the sail full of wind. I expect to eliminate this trouble by using the Nilsson Sail Hoist. The track is semi-tubular, and the slides are "buttons," sliding inside the tube, allowing the sail to swing freely up, down or sideways. Mr. Nilsson makes strong claims for his hoist, and I believe it will solve the "track troubles" for jib-headers.

The rigging plan is considerably out of the ordinary, and will take a bit of explaining. The big idea was to do away with runners or preventers, so that the helmsman, with his three sheets on travelers, would have nothing to do when coming about except shove down the tiller. On the mainmast are three shrouds — let's call them topmast shroud, main shroud, and lower shroud. The topmast shrouds lead from chain plates abreast the mast, over spreaders to the masthead. The main shrouds are anchored some four feet abaft the chain plates for the topmast shrouds, and lead direct to the mast at the point where the jibstay comes, thus counteracting the pull of the jibstay and the resulting buckle in the mast, which is usually taken care of by runners. The lower shroud will have its chain plate just abaft the chain plate for the topmast shrouds, and lead to the mast at a point 20 ft. above the deck, giving three points of support for the mainmast. In addition, two permanent backstays will lead from the masthead to a point abaft the mizzen rigging, allowing the boom to swing underneath with plenty of room to spare. This may all seem a bit complicated, but remember that it's *standing rigging*, and once properly adjusted, that mast should "stay put," and without bothersome runners or preventers.

On the mizzen will be the usual topmast shroud, and a main shroud leading from a chain plate four feet abaft the topmast shroud chain plate to a point on the mast ten feet below the truck. This will act as both shroud and backstay. The spring stay from mainmast to mizzen will hold the head of the mizzenmast when the main is sheeted down hard.

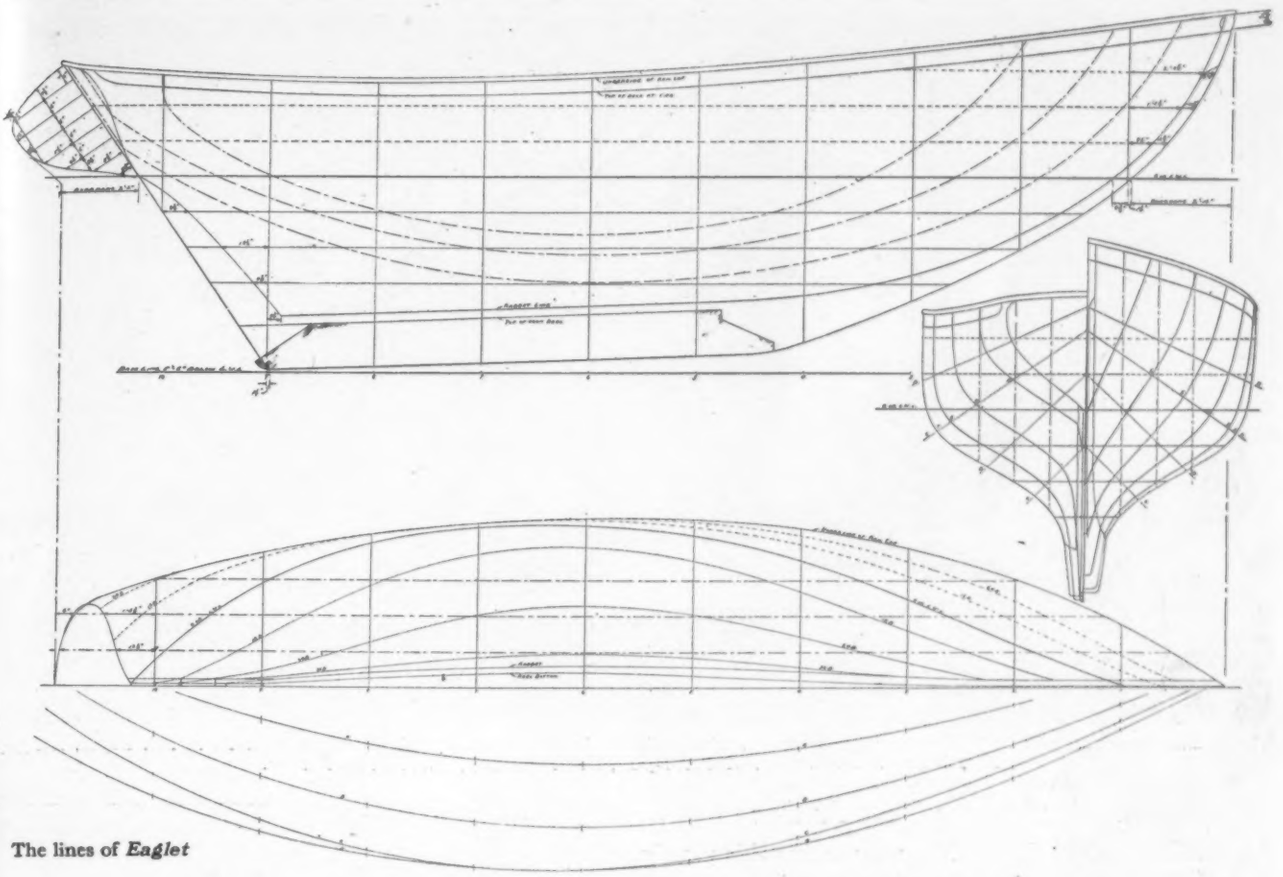
There will be considerable strain on both the main shrouds, acting, as they do, as shrouds and backstays. So the chain plates will be extra size, securely reinforced and bolted. The rigging will be plow steel, especially made up by Harry Greening, who says that not only will the rigging stand the strain, but that it will be practically stretch-less, and hold its galvanizing for twenty years. The turnbuckles will be bronze, of a new pattern made by Merriman Bros., who guarantee them to be as strong as steel, more reliable and more satisfactory. Merriman is also making the lignum vitae and bronze blocks, with bronze roller bushings.

All halliards will be manila, the main being double-ended, one end leading to a jig. The mizzen sheet will not belay on the quarters, as shown in the plans, but will lead to a cleat on the boom, near the gooseneck. The mainsheet will belay on a cleat on the bridge deck, or on the mizzenmast, a detail to be determined later. The single jib sheet will belay on a cleat on the cockpit coaming. All sheets will be on travelers, and within easy reach of the helmsman.

I fully expect a chorus of howls from the critics regarding some of the features of *Eaglet*. Some of these may be justified, and some of them may not be. There'll be a lot of kicks about the outdoor rudder. Well, I've been shipmates with numerous outdoor rudders, and never quarreled with them, as long as they were hung right. If anything goes wrong, you can see it, and generally fix it easily. There is one less hole through the hull, no rudder sleeve to leak, and no rudder port for worms to hibernate in. I have an idea that whoever owns *Eaglet* twenty years from now will appreciate that outdoor rudder.

The kicks about the sail plan and rigging plan will come next. I'll hear that those main shrouds, leading well abaft the mast, won't let the boom swing out far enough. But they will. No boom *ever* swings out perpendicular to the keel, or anywheres near it; especially on a jib-header, where the head of the sail falls off sooner, and farther, than on a gaff-header. And as these shrouds don't lead to the masthead, nor over spreaders, they should not interfere with the sails as the sheets are slacked away. Frankly, I copied this idea from a Class Q boat, where it worked surprisingly well, especially in preventing a buckle in the mast from the pull of the jibstay.

And I'll hear that with her hull form, displacement, and short ketch rig, she'll be slow. Well, in comparison with most two-stick cruisers of equal size, accommodations and comfort, I don't think she will be. I think she'll beat most of this type, especially with the little jib topsail or the



The lines of *Eaglet*

reaching jib set. As for the "fast cruisers" — let 'em go, I'll reach the same port, the same day, with less work and a darn sight more comfort.

What horribly tall spars! Well, admitting that they're taller than most, still they are not quite so tall as they look. To prove it, sketch in on *Eaglet's* profile a foot or two more overhang on the bow and about three feet on the stern — the deck length of the average boat of 28 ft. w.l. — and they don't look quite so tall, do they? And the Block Island schooners had quite tall spars — with no standing rigging whatever! And time and again I have seen spars which seemed gigantic on blue prints shrink to normal proportions on the finished boat. Altogether, I think the spars will stay in her. The rigging plan is experimental to a certain extent, and if the spars buckle, I have the privilege of changing things a bit until I get the proper hook-up.

So she steers with a tiller! Right-O. If she steers as well as I hope she will, it'll be a pleasure to handle the stick. And if she doesn't, there's nothing to prevent my putting in a wheel except a possible — yea, probable — lack of lucre.

What a small cockpit! How so? *Eaglet* isn't a party boat, but a cruiser for one to four people. And the cockpit will hold four very easily, and if there is a temporary overflow, they can camp on the cabin top, or go down into the cabin, where they may find something that'll make them glad they went below.

And what'll they find below decks? Wait for the next issue, when you can give the once-over to the construction plan, and see the kind of a layout which will sleep four people comfortably, give them a large, workable galley, good toilet room, two good hanging lockers, lots of stowage space — and full headroom and plenty of floor space.

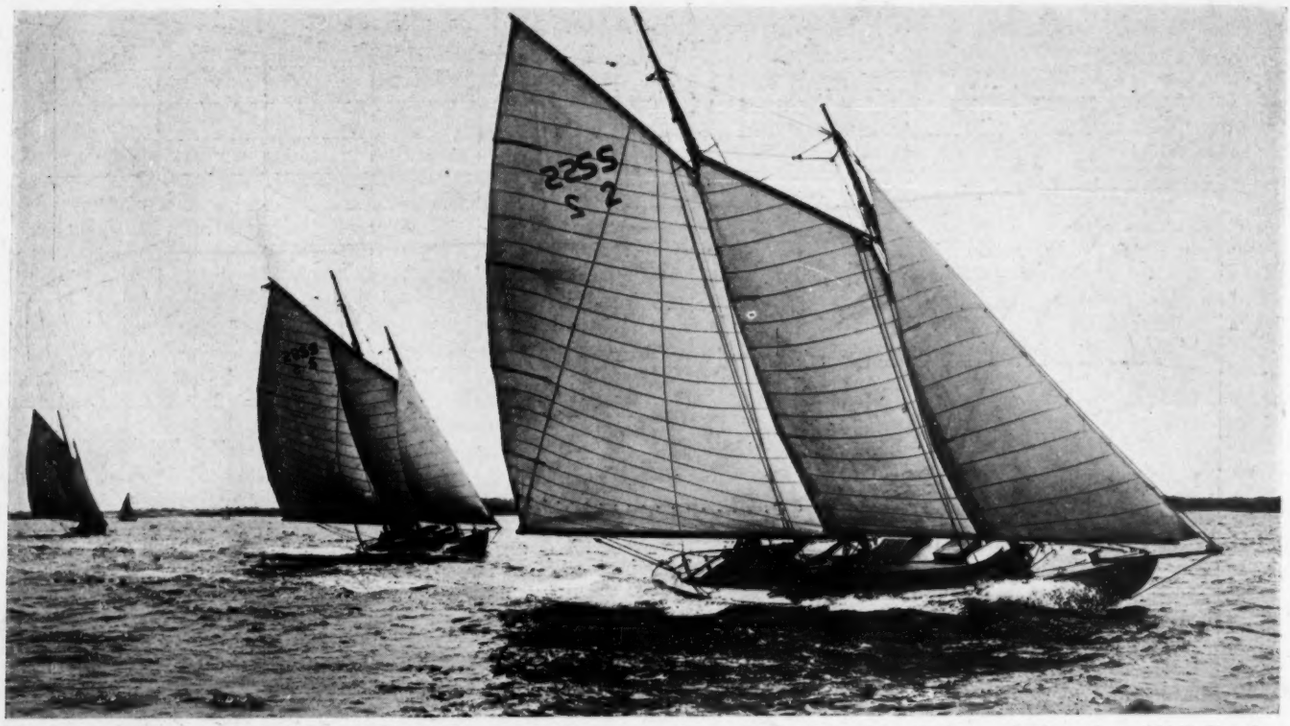
The British Ocean Race

NEWS has just been received from England of several changes in the conditions of the ocean race announced in the last issue of YACHTING. The date of the start has been changed to August 18th, in order not to interfere with other scheduled regattas. The start will be made from Ryde, instead of Cowes, the yachts proceeding to the eastward and outside of the Isle of Wight, thereby dodging the tricky tides in the Needles Channel. The turning point will be Fastnet Light, off the southwest coast of Ireland, and the finish at Plymouth, a total distance of approximately 600 miles.

The race will be sailed under the flag of the Royal Western Yacht Club, of Plymouth, which has announced that all visiting yachtsmen will be made honorary members during their stay. The start will be handled by the Royal Victoria Yacht Club, of Ryde. Commander Humphreys, R. N., has been made a member of the committee, and will represent the Royal Navy at the finish at Plymouth.

The B. R. A. measurement rule, somewhat modified, will be used for rating the boats, and it is said that it will be the fairest rule ever devised for mixed types of boats.

One tentative American entry has been made, of the yawl *Filatonga*, owned by J. Linton Rigg, of New York. Rigg is figuring on shipping his boat across the pond on a steamer, thus saving from three to four weeks' time. *Filatonga* is of the clipper bowed, cutter type of yacht so popular some years ago, narrow in beam and deep in draft, and showed fine speed last summer with a new Marconi rig. While she should make a fine showing in the race, it is hoped that one or more entries will be made from the ranks of the recently developed semi-fisherman type of schooner as being more typical of the type of cruiser now in vogue with American yachtsmen.



The Sound Schooners will be "going strong" this year, with at least six of the original eight that were built racing. *Algol*, Langley Hawthorne, in foreground, with *Halcyon*, H. V. Brumley, Jr., right behind her.

Sound Schooner Class Active

A RACING class that will be very active this year in Long Island waters is the Sound Schooner Class. Six of these boats will be out, and possibly a seventh if the *Daffodil*, now at Newport, R. I., is purchased, as now seems likely. The Class has an active organization which is making every effort to get back as many as possible of the original eight boats that were built to the class in 1912. These yachts are 30 feet on the water line, 41 feet over all, and they have furnished fine racing for their owners since they came out. Two have changed hands recently, Frederick Gade, of the New Rochelle Yacht Club, having purchased the *Rival* and Knute Stokes, of the City Island Yacht Club, the *Alicia*. The others that will be out are the *Halcyon*, Howard Brumley; *Algol*, Langley Hawthorne, winner of the Championship last season; *Moira*, Clarkson Cowl; and *Allure*, J. S. Appleby.

In the N. Y. 30-foot class the *Phryne* will be in the racing once more. She was purchased recently by J. P. Morgan, who owned her from 1910 to 1914, and is being refitted. The *Minx* has been sold by W. H. Hoffman to W. C. Atwater, Jr., a newcomer in the class.

Racing in New Zealand. Sloop *Ariki*, of Auckland, N. Z. She was designed and built by Logan Bros.

Lalla, an Italian Six-Meter yacht designed by Henry J. Gielow and built last winter at St. Pietro de Castello, for Dr. Giuseppe Calzavara, of Venice, for racing in Italian waters.

The Ship *Shenandoah*

THE unusually attractive picture on the cover page of this issue is of the American ship *Shenandoah*, from a painting by the celebrated marine artist, Charles R. Patterson, a number of whose canvases we have been privileged to reproduce in YACHTING the past year.

The ship is depicted making sail while outward bound from 'Frisco for a European port. The *Shenandoah* was one of the most famous of the windjammers of some 20 years ago. She was a four-masted bark (or ship, as she was classed in the American register) and was built by the firm of Arthur Sewall & Co., of Bath, Maine.

As it was in the old days! Overhauling and fitting out yachts at the mouth of Gowanus Creek, Brooklyn, in 1870. From an old woodcut in a copy of Harper's Weekly of that period.

The New Q and R Class Racing Fleets

In the adjoining column is a list of the new class R and Q racing fleet being designed and built for the coming season in the United States.

Motor Yacht *Alcalda* Converted into a Diesel Cruiser

The well known motor yacht *Alcalda*, which was chartered last summer to Mr. Ogden Mills, was purchased by him in the fall and is now being converted, from plans and specifications by Messrs. Tams & King, into a twin-screw Diesel yacht.

This yacht is 105′ overall, 16′ beam, 5′ draft. When she was originally built she was equipped with two 300 h. p. gasolene motors. These are being replaced by two 150 h. p. 8″ x 12″ reversible Winton Diesel motors. This installation is particularly interesting as it will increase the cruising radius of the vessel by approximately 700 miles and will reduce the operating cost by about $10 an hour. She will be in commission early in the spring with headquarters at Newport, R. I.

OWNER	DESIGNER	BUILDER
	NEW Q's	
	At Marblehead	
Robert Amory	J. Anker	Anker & Jenson
L. F. Percival	J. Anker	Anker & Jenson
Grafton Smith	J. G. Alden	Hodgdon Bros.
B. D. Barker	Burgess, Swasey & Paine	Hodgdon Bros.
	NEW R's	
	At Marblehead	
C. F. Adams	Burgess, Swasey & Paine	Lawley
C. P. Curtis	Burgess, Swasey & Paine	Lawley
C. A. Welch 2nd	L. Francis Herreshoff	Britt Bros.
Dr. Morton Prince	Anker	Anker & Jenson
L. Davis & P. Benson	Anker	Anker & Jenson
Sydney A. Beggs	Burgess, Swasey & Paine	Thornycroft Scandva
C. H. W. Foster (Schr)	Burgess, Swasey & Paine	Thornycroft Scandva
	On Long Island Sound	
Geo. Nichols & J. S. Morgan	Herreshoff	Herreshoff Co.
H. L. Maxwell	Fife	Nevins
Donald Cowl	Mower	Nevins
C. D. Mallory & R. Law	Alden	Herreshoff
Harold Tobey	Gardner	Wood
Manhasset Bay	Hoyt	Nevins
	On Buzzard's Bay	
J. Lewis Stackpole	Burgess, Swasey & Paine	Thornycroft Scandva
F. C. Hood	Burgess, Swasey & Paine	Thornycroft Scandva
	At Seal Harbor	
Edsel Ford	Anker	Anker & Jenson
	At Rochester, N. Y.	
W. P. Barrows	Alden	Lawley
	At Chicago	
Samuel Dauchy	Mower	Lawley
	At Asker (Norway)	
Johan Anker	Anker	Anker & Jenson

Yachting

Herbert L. Stone, Editor

Samuel Wetherill, Associate Editor

Editorial

The Value of Racing Class Organizations

ONE often wonders why it is that some racing classes are so popular and are active over a long period, while others quickly disintegrate as the owners lose interest and the boats become scattered beyond any chance of getting them collected again in one locality. In some cases it may be that this failure of a class is due to the boats not being satisfactory or of a desirable type, but more often the cause is to be found, we believe, in the lack of a strong class organization that helps to bind the members together, to bring them into closer personal touch with each other, and to keep up interest throughout the year instead of only during the short racing season.

In his report last year to the delegates of the Yacht Racing Association of Long Island Sound, the Recorder, Mr. W. P. Stephens, pointed out the benefit of class organizations, not only to racing in general, but to the individual as well, by keeping up the value of the boats themselves. One has only to look at the records to see that this is so. The great success of the N. Y. Y. C. "Thirties," the "Forties," Victories and the Stars, after many years of racing, is due to class organizations that have made racing so satisfactory, and the personal relationships so pleasant, that these classes have become exceedingly popular, and it is seldom necessary to sell a boat out of the class in order to find ready purchasers.

Take any class where the type of boat is suited to local conditions, and its measure of success is in direct proportion to the energy and efficiency of the class officers. In the Star Class even a national organization has been built up which has resulted in over three hundred boats being built and some thirty local fleets formed in different parts of the world, all racing under the same rules and conditions.

It is up to the class officers to formulate rules for the conduct of the class, for the carrying of uniform equipment, for the limiting of the frequency of hauling out, etc. It is up to the class organization to enforce these rules and not up to the Regatta Committee of a local club giving a race. Recognizing this division, the Yacht Racing Association of Gravesend Bay recently passed a resolution to the effect that "if a one-design or restricted class has class rules and a class association, then no yacht will be allowed to start in that class unless it conforms to all class rules and is enrolled in the class association and is eligible under the rules of that association. If there is a protest based upon the violation of any class rule, restriction or regulation, it must be filed with the officer or committee designated by the class association for such purpose, and their decision in such matters will be final, and must be enforced by the Regatta Committee that conducted the race." This divides the authority as it should be divided. The Regatta Committee has full authority over the race and rules of right of way, but the class association has full authority over all class matters.

In order that any possible conflict of authority may be eliminated, it seems as if this action of the Gravesend Bay Association is one to be recommended.

The British Ocean Race

We've rather prided ourselves, on this side of the Atlantic, on our achievements in ocean racing and in the development of this particular branch of yachting. In most of the trans-Atlantic yacht races of the past American yachts either were sole contestants or largely predominated the entry lists. The Bermuda, the Halifax and other ocean races of moderate length have proved popular with our yachtsmen and have, in a measure, been responsible for the development of the small cruising yacht capable of going to sea and staying there. It would, therefore, be regrettable if the International Ocean Race planned by the British yachtsmen for next August should be sailed without one or two representative American yachts in the fleet that will go over the course from the Isle of Wight to Fastnet Rock, off the Irish Coast, and back to Plymouth. One entry from this country now seems assured. But there should be more, and especially should there be one of the type of small schooners we have developed here recently, to carry the American ensign in this event.

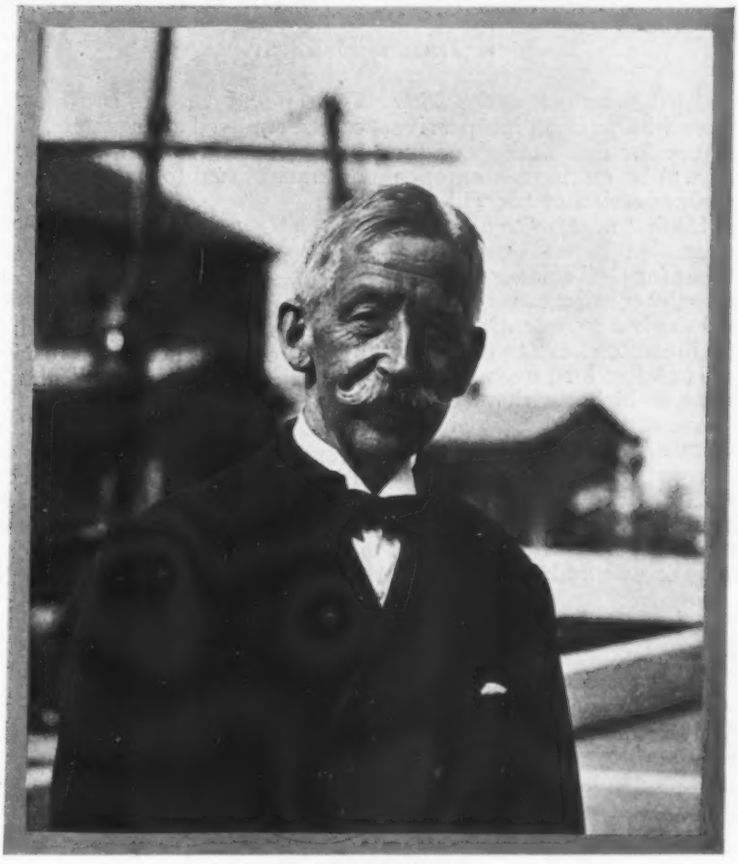
The cost of such an enterprise need not be prohibitive. If no individual wants to tackle it alone, a small syndicate could be formed to carry through such a project without anyone being "set back" to a great extent. A suitable boat can be found, either by purchase or charter, if we act promptly. All that is needed are a few energetic men with a love of blue water sailing to get the thing started.

The Ingomar "Comes Back"

It is always pleasant to meet old friends one has not seen for years, and so we hail the schooner *Ingomar's* return to active use again, even in altered form, under the ownership of Spencer Borden, Jr., with considerable satisfaction. For *Ingomar* was a famous yacht in her day — which was a day when large racing schooners were more plentiful than they are now — and we did not want to see her suffer the fate of other well-known yachts of her generation, i.e., being sold for commercial use or going at too early an age to the "bone yard."

Ingomar first came out in 1903. She was designed and built for that keen sportsman, Mr. Morton F. Plant, by the Herreshoff Co., and under Mr. Plant's ownership she was raced both here and abroad for many years. In her second year she crossed the Atlantic for racing in European waters and made the passage to the Isle of Wight in 15 days 06 hours under cruising canvas, with Captain Charles Barr in command.

In the World of Yachting



W. P. STEPHENS

THERE are few men in yachting today who are as familiar with the history and tradition of the sport or with the development of yacht design as W. P. Stephens, or who have as intimate a knowledge of the boats that have come and gone in the last forty-odd years as he. Best known, perhaps, from coast to coast, as editor of Lloyd's Register of American Yachts, it is hardly in this field, important as it is, that he has done the most work for American yachts and yachtsmen. For in his long and useful career he has been, first of all, an ardent sailor and small boat cruiser, a designer and builder of yachts and, in the years from 1884 to 1900, when he was yachting editor of Forest and Stream, an enthusiastic advocate of boat sailing as an interesting, developing and healthy sport.

Mr. Stephens began his sailing in 1876, when he built his first boat, a 14-foot Rob Roy canoe, and cruised in her successfully, thus helping to win popularity for the small boat for cruising purposes. Beginning with the following year he designed and built a different canoe every winter, cruising in each one all summer and studying her possibilities. In 1880 he was one of that small, enthusiastic group that founded the American Canoe Association. After working a couple of years at shipbuilding in Roach's Shipyard, Chester, Penn., he started a boat shop at West Brighton, Staten Island, where for five years he designed and built canoes and small yachts. In 1884 he succeeded the late C. P. Kunhardt as yachting editor of Forest and Stream and was soon in the thick of the bitter battle that then waged over the comparative merits of the centerboard and the cutter type. Always a strong advocate of the narrow, keel type, he lined up with the "cutter cranks" as they were derisively called. The long struggle ended in favor of the keel boat, as the development of the last 30 years indicates.

Most of his designing has been in the smaller boats. In 1895 he turned out the half-rater "Ethelwyn" for the Seawanhaka's Cup defence, and she beat the first British challenger "Spruce IV." In her he developed the leg-of-mutton mainsail to a point surprisingly like the modern jib-headed rig. He was also responsible for working up the present uniform system of yacht classification by classes, superseding the arbitrary classification which then differed in each club or association. Since 1903 he has been editor of Lloyd's Register of American Yachts, and for the past two years the Recorder of the Yacht Racing Association of Long Island Sound. Does anyone doubt that the term "useful career" as applied to Mr. Stephens is justified?

Ditty Box—and How to Build Her

A Little 16-footer for Sailing, Racing or for Use With an Outboard Motor

By THOMAS DARLING

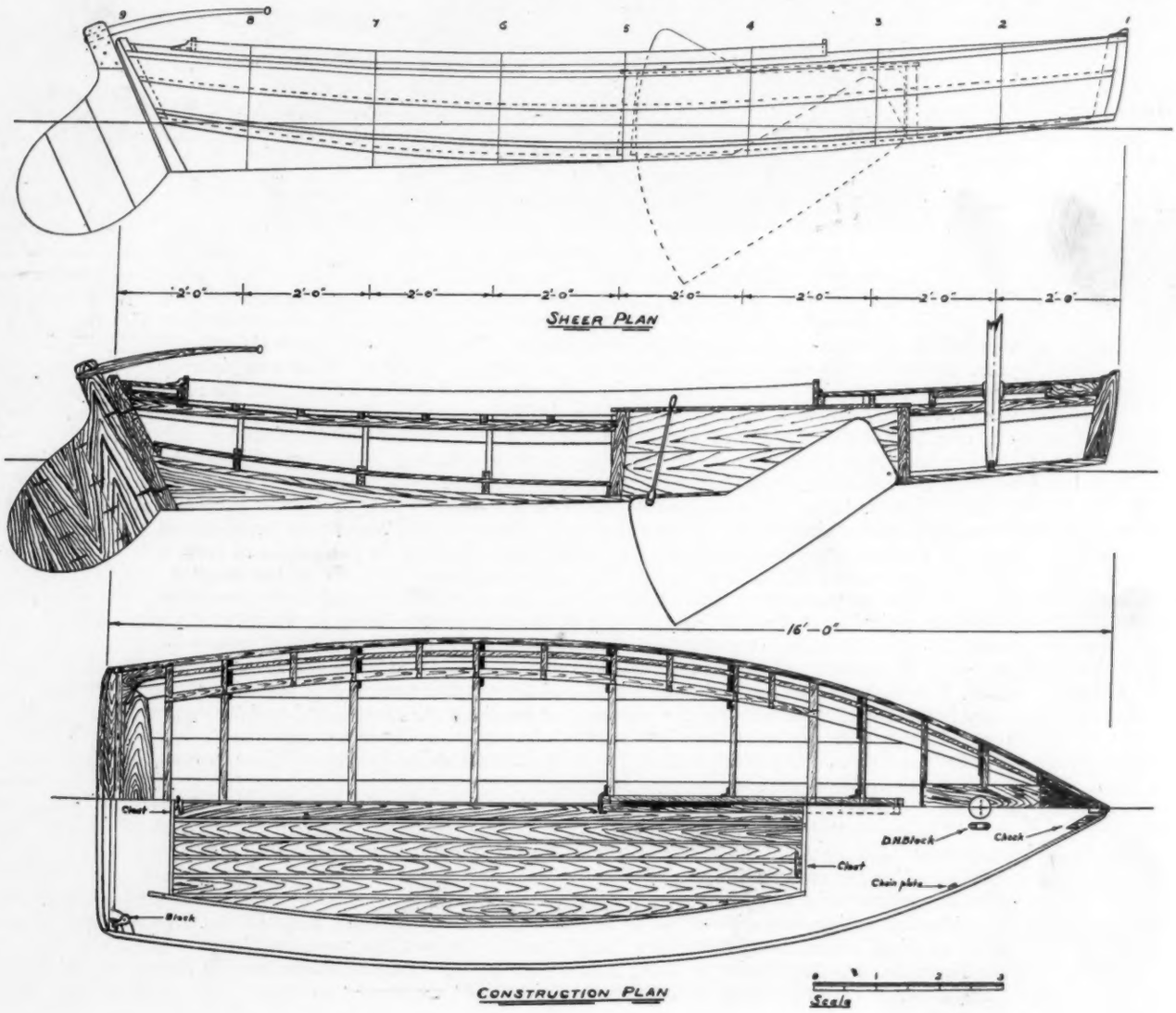
THIS little catboat, which I have called the *Ditty Box*, is designed for those who want an inexpensive craft which they can use for day sailing, or for one-design class racing. She will be serviceable on open water, river or lake, and the possession of her will give pleasure to the youngster as his first boat, or to his elders when in search of a coat of tan.

Ditty Box is an excellent boat for the beginner in which to learn boat handling. Although her sail area is moderate she can step right along, and she is a comparatively dry, able little craft. Her owner will seldom have to reef, if he keeps his boat moving. She is 16 feet long overall and 5 feet 4 inches beam. She draws 10 inches without board. The design is the result of observation and experience in building and sailing a boat similar to *Ditty Box*. Her construction is simple, though very strong, and she is easy to build if the directions are carefully followed. No steaming of timbers or planks is necessary. There is plenty of cockpit room. Five passengers can be carried, a load of seven hundred pounds, and she will make good speed. Upkeep and care are hardly worth mentioning. Her sail can be removed after use and when tied up to the mooring, as slides are fitted to the luff and foot and these work on tracks fitted to the mast and boom.

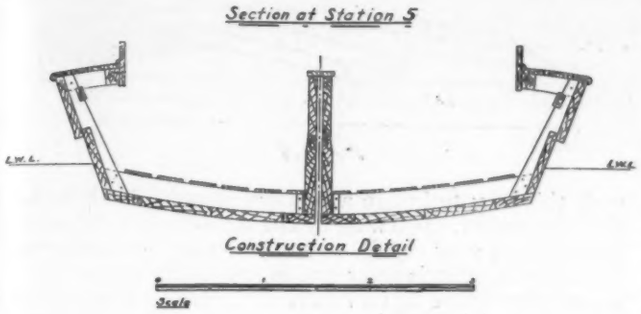
Laying Down

After studying the lines and construction plans the first process in building is to lay the boat down. Get some building paper, or a good grade of wrapping paper, if a clean, even floor is not handy, and spread it out smoothly. It will only be necessary to lay out the stem, transom and the seven frames, as the latter will also serve as moulds when set in position.

The same process will be followed for all seven frames, therefore I will explain laying out No. 5 as an example. Lay down a base line and erect a perpendicular at the center of this line. Measure up 1′ 0″ and draw a line parallel to the base line. (See Heights, Station 5, in Table of Offsets.) Measure up 1′ 6¼″ on perpendicular or center line, and draw another line parallel to base line



CONSTRUCTION PLAN



Measure up 2′ 1½″ on center line again, and draw a line parallel to base line. These three lines drawn parallel to the base line are the sheer, top of plank A, and bottom of plank A, respectively.

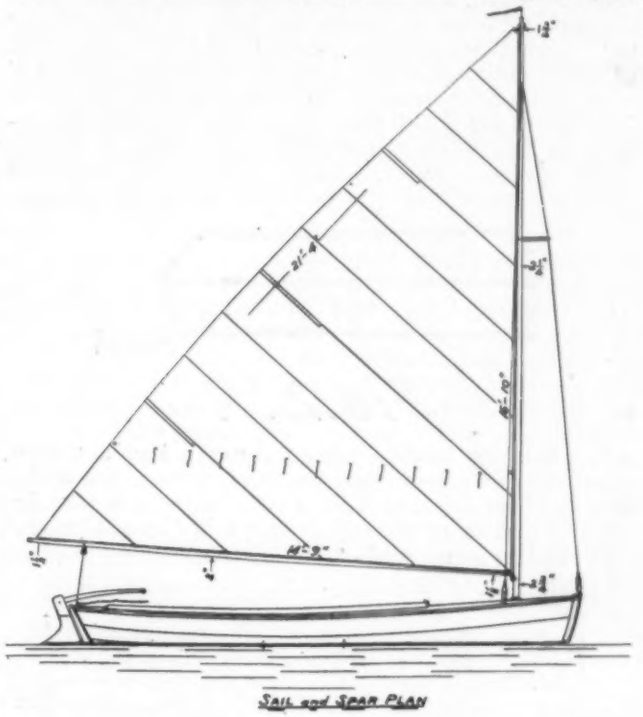
Now lay off 2′ 5¼″ from center line on first line up from base line. This gives you the sheer mark. Lay off 2′ ⅛″ on third line drawn parallel to base line. This will give the half-breadth at bottom of plank A. Connect these two points with a straight line. The top of plank A will come where the second line drawn parallel to the base line intersects this straight side line.

Square in ¾″ from this point and draw a line (parallel to side line) from top of plank A to bottom of plank A. As the frame consists of two side members and a bottom member we will call this the lay-out for the outside edge of the side member. Obtain widths at heel and head of side member and lay off inside edge of same. Repeat these steps on other side of center line, and full breadth will be obtained. Do this for all seven frames, using the Table of Offsets. Bevel approximately. Keep ends long for setting up on floor.

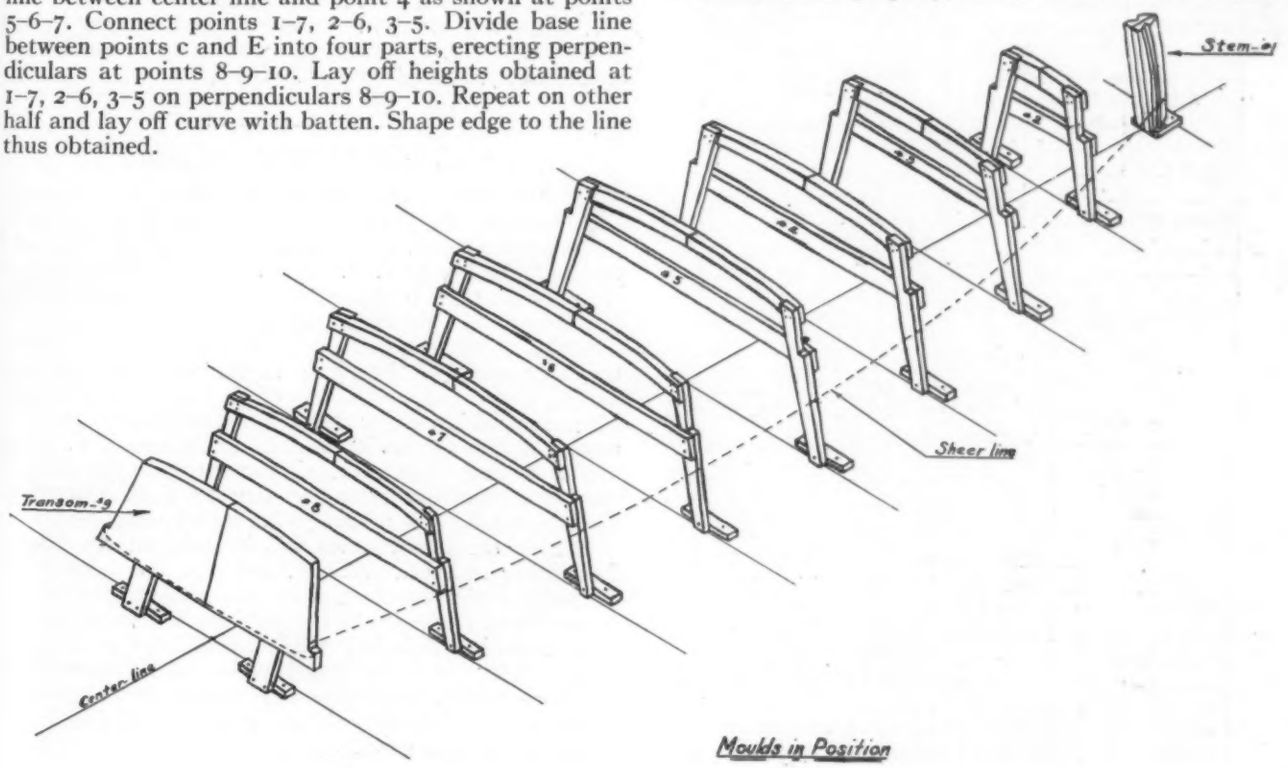
Now, lay out a timber mould as follows: Lay down a base line on a piece of stock ⅜″ in thickness, and 4′ 3″ long. Erect a perpendicular at center of base line. Measure up 2½″ and describe an arc from this point to the base line using wing dividers. See Fig. 1. Divide arc into four equal parts as shown by points 1–2–3–4. Divide base line between center line and point 4 as shown at points 5–6–7. Connect points 1–7, 2–6, 3–5. Divide base line between points c and E into four parts, erecting perpendiculars at points 8–9–10. Lay off heights obtained at 1–7, 2–6, 3–5 on perpendiculars 8–9–10. Repeat on other half and lay off curve with batten. Shape edge to the line thus obtained.

Using this mould we can now lay off the bottom members of frames. They are 1⅛″ x 2½″, excepting No. 2, which is 1⅛″ x 3″, as the mast steps on it. Obtain the proper lengths and cut ends to conform to flare of sides. Mark center line C (center line) on each frame.

Notch ends of bottom members ⅜″ as shown in Construction Plan to receive side members. Locate fastenings (see Construction Detail, Section at Station 5) and bore



for 2½″ cut copper nails. Drive nails, fit burrs, cut ends off and rivet, using ball-peen hammer. Be sure that these rivets are driven properly, as there must be no chance of



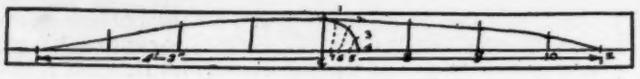


Fig. 1.

working or play here. Place and secure the braces or cross-spalls as shown in sketch "Moulds in Position." Screws will be best for securing these, as the braces can then be easily removed. Lay out transom, using same method as for frames. Be sure to obtain true height of same. (Refer to Construction and Sheer Plan.) Should the builder wish to use an outboard motor, I would recommend that 1½" stock be used for transom. Find out how much room will be required for the clamps on the type of motor you intend to use. Allow the transom edge (top) to project above deck this much, with 1" added. This additional stock will permit of a proper level being shaped later

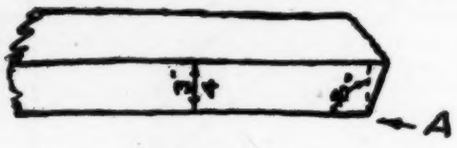


Fig. 2.

when finishing off the top of transom. Lay out stem, shaping the forward edge. Locate and mark the rabbet line and bearding line. Take a piece of the side planking 2" x 6" and shape the end as shown in Fig. 2. Corner A will touch the back rabbet. It is necessary to shape plank

Bill of Lumber - Ditty Box

Herman Darling — 1/17/25 — New York City

Name of Part	No. of Pieces	Length Ft.	Length In.	Width Ft.	Width In.	Thickness Ft.	Thickness In.	—Data—	
Stem	1	2	0	0	6	0	3	Oak	Dressed
Transom	1	8	0	0	10	0	1⅝	"	"
Bottom Frames	7	4	6	0	2¼	0	1⅝	"	"
" "	1	1	6	0	3	0	1⅝	"	"
Side Frames	14	1	4	0	4	0	¾	"	"
Deck Beams	3	3	6	0	1¾	0	¾	Whitewood	"
" "	10	0	9	0	1¾	0	¾	"	"
" "	2	4	0	0	1¾	0	1⅛	"	"
Trunk Logs	2	4	9	0	9	0	1⅝	Cypress	"
" Planks	2	4	9	0	9	0	¾	"	"
Parting Strips	2	1	6	0	2	0	¾	"	"
Side Planking	2	18	0	1	0	0	¾	"	"
" "	2	18	0	1	2	0	¾	"	"
Bottom Planks	1	16	0	0	8	0	¾	"	"
" "	2	15	0	0	8	0	¾	"	"
" "	2	13	0	0	8	0	¾	"	"
" "	2	10	0	0	8	0	¾	"	"
Deck Planking	50sq ft	——		0	3	0	½	Whitewood	No 2 Grade Groove
Cartines	2	10	6	0	1¾	0	1¾	"	Dressed
Skeg	1	7	6	0	10	0	1⅝	Oak	"
Stern Batten	1	2	6	0	3	0	1⅝	"	"
Rudder	1	7	0	0	10	0	1⅝	"	"
Tiller	1	3	0	0	4	0	1⅝	"	"
Coaming	2	11	0	0	6	0	½	"	"
"	2	3	0	0	6	0	½	"	"
Half Round	2	18	0	0	1	——		"	"
Quarter Round	2	11	0	0	½	——		"	"
" "	2	3	6	0	½	——		"	"
Trunk Cap	1	5	0	0	⅜	——		"	"
Flooring	12	12	0	0	3	0	½	Cypress	"
Clamps	2	18	0	0	1½	0	¾	"	"
Mast Partners	1	2	0	0	10	0	1⅛	Oak	"
Breast Hook	1	1	0	0	14	0	1¾	"	"
Knees	2	1	0	0	8	0	1¾	"	"
Mast	1	19	6	0	3	0	3	Spruce	Rough
Boom	1	15	0	0	2½	0	2½	"	"

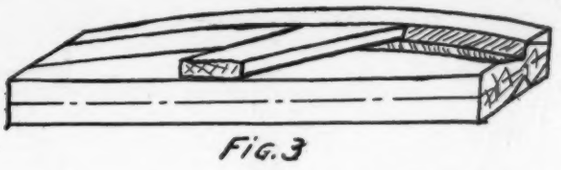


Fig. 3

ends this way to insure a proper and solid fit in rabbet. Cut the rabbet, beginning at the stem-head and working down, being very careful not to cut away the rabbet and bearding lines. It is safer not to cut to full depth, but to leave some waste to be removed when planking is fitted to frames. Refer to Fig. 3 to see how fitting is done. Do not bevel stem to finished line, *i.e.* from rabbet to forward edge of stem, until planking is fitted and fastened.

Table of Offsets - Ditty Box

Herman Darling — 1/17/25 — New York City

Heights	1-Stem	2	3	4	5	6	7	8	9 Transom
Sheer	0-4-0	0-6-6	0-9-0	0-10-4	1-0-0	1-0-6	1-0-0	0-10-4	0-8-4
Top of Plank "A"	0-11-0	1-1-2	1-3-4	1-5-0	1-6-2	1-6-0	1-5-0	1-3-0	1-1-4
Bottom of Plank "A"	1-8-2	1-9-4	1-11-0	2-0-4	2-1-4	2-1-4	2-0-2	1-9-4	1-7-6
Half-Breadths	—	—	—	—	—	—	—	—	—
Sheer	0-1-4	0-11-1	1-9-0	2-2-0	2-5-2	2-7-0	2-5-4	2-2-6	1-11-0
Bottom of Plank "A"	0-1-4	0-7-4	1-4-0	1-8-4	2-0-1	2-0-1	1-11-0	1-10-0	1-7-0

* Moulds bottom side up — Base-line drawn 4" below Sheer on Stem.

Setting Up Moulds

Set moulds, or in this case the frames, in their proper positions, using a center line and station marks as shown in sketch "Moulds in Position." Brace each one solidly, checking to see that it conforms to center line, and is plumbed properly. Set transom and stem. If necessary reinforce side members with extra pieces of stock, as there will be considerable strain when side planking is being sprung into place.

To simplify the work templates on patterns can be furnished at a moderate sum for those wishing to build. They will consist of the following items:

1, Beam mould; 2, Frame mould (bottom); 3, Frame mould (side); 4, Center-board trunk; 5, Center-board; 6, Rudder; 7, Side planking (A–B); 8, Stem; 9, Transom.

(To be continued)

And Still New Stars Come

THREE new fleets were added to the Star Class the last month. These were the Flota de la Bahia de Cienfuegos (Cuba), Newport Harbor Fleet (Calif.), and Otsego Lake Fleet (N. Y. State). The first named makes the second Cuban Fleet and it is located about 250 miles from Havana on the South side of the Island. The second named is about 30 miles south of Los Angeles. It is made up of members of the Newport Harbor and Southland Sailing Clubs. It is an offshoot of the Southern California Fleet and will number about fourteen Stars. The last named fleet is on an inland lake in upper N. Y. State, and is the first Fleet of this character to join the Association. Its members belong chiefly to the Cooperstown Country Club. This makes 30 fleets and *309 boats*.

The International series will be held on the Sound, September 1st, 2nd, 3rd, 4th, and 5th. The Larchmont, Bayside, Knickerbocker, Port Washington, and Manhasset Boat Yacht Clubs will hold the races, though the exact order in which they will be sailed is not yet decided. This will be the week following the Gold Cup races on Manhasset Bay, and these two events should make a wonderful two-weeks' vacation for anyone desiring to take in these important races.

Making the Small Power Cruiser More Efficient

Some Suggestions to Increase the Efficiency, Seaworthiness and Comfort of the Small Cruiser

By S. S. Pierce

THAT the small power boat of the present day is one of the greatest boons to humanity, in the form of healthful recreation, a pleasant summer home in northern waters, an equally pleasant and inexpensive winter home in southern waters, a means of exploring thousands of miles of our inland waterways, and offering a thousand other advantages, is a platitude which does not concern this argument. We are dealing here with somewhat sterner stuff, cherishing the hope that some day the motor boat will find a new use in supplementing and increasing the number of real cruises and adventurous voyages such as we constantly hear of undertaken in small cruising sail boats and auxiliaries. In other words, the sort of cruising which breeds real seamen, the very backbone of a nation's sea power. Why do we so seldom hear of such cruising undertaken in power boats, and so often in sail boats? Why were the Bermuda races for power boats so soon abandoned? Is the motor boat doomed to hug the shore, or if it does weather a storm at sea, must it make the crew suffer such discomfort and danger that they are discouraged from ever trying it again?

In order to answer these questions we must consider, first, the inherent faults of the average small power cruiser for offshore work. Next, the underlying causes of these faults. And, lastly, to avoid purely destructive criticism, it would be well to suggest whatever remedies there may be.

Probably the greatest fault of all lies in the totally unsuitable power plants with which these small cruisers are usually equipped, namely, high-speed engines, more or less of the automobile type, whose place is in fast runabouts and high speed or express cruisers. Now the small cruiser in question, if it is to have any pretense to seaworthiness and comfort, can never hope to exceed a speed of ten miles an hour, and a normal cruising speed of somewhat less.

Naturally, at these speeds, very large diameter propellers are required for the best *running* efficiency, and to give the necessary thrust when bucking a head sea or when lying-to. Therefore, high-speed engines are quite unsuited to the conditions. Furthermore they are usually fitted with very light flywheels, which allow them to race horribly when the propeller comes out of solid water, and give them a nasty tendency to stall when the stern sinks into the trough. Another objection to so-called "medium" and high-speed engines is the difficulty of assuring proper lubrication on long runs, the excessive wear and strain on all moving parts, and, perhaps, worst of all, the vibration inseparable from all high-speed machines which makes cooking, reading, and writing below almost impossible while under way.

The next greatest fault is undoubtedly the installation of the engine. Too often do we find it so far aft that the inclination of the shaft causes faulty lubrication and air pockets in the water line, as well as an undue strain on all parts. Sometimes it is too far forward, giving the boat a tendency to dive in a head sea and increasing the difficulty of steering before the wind. Even when it is amidships, where it belongs, it is too often tucked away under a low bridge deck, where the ventilation and accessibility are so bad that it is impossible to give it any care in rough water or bad weather.

Engine beds are invariably too light and too short. Gasoline tanks are too far away to feed the carburetor properly by gravity in rough water, and such provision as there is for ventilation has to be closed up as soon as the spray begins to fly. Engine room bulkheads are usually mere partitions, liberally provided with limber holes, allowing gas, oily bilge water and crankcase fumes to penetrate to all parts of the boat.

The third fault is in the proportions of the hulls, i.e., in the smaller boats (under 45′), too much beam, too high out of water, not enough draft, too much forefoot, and inadequate rudders. In the larger boats, the beam-length ratio is usually about right, or even too high, but the draft is ridiculously scant for real seaworthiness.

Finally, the accommodations are always overdone if we consider the boat's size on a tonnage basis. "The accommodations of a 45-footer in a boat 35 feet long" is a slogan which has ruined many a boat and discouraged many a novice with the cruising game. People soon become disgusted with trying to sleep in an upper, or under an upper, berth (on a small boat); "double" berths are worse, and a cross bunk is impossible. Most of the conventional "cruisers" are regularly equipped with the wick type of kerosene stove, which will not work unless the ship is on an even keel, i.e., absolutely still water or at anchor.

The underlying causes of this state of affairs are rather obscure unless we consider the fact that so many owners of power cruisers have never had much experience on the water before, and have demanded, in their ignorance, impossible conditions. The naval architects, rather than lose an order, have attempted to fulfil these conditions, and to the layman have apparently done so. The results are to be seen everywhere, in the form of flat-bottomed, square-sterned abortions, crammed full of folding what-nots, bedecked with automobile accessories and making more splutter and fuss at nine miles an hour than a destroyer at thirty-five. A contributing cause is the government tax, which is based on overall length instead of bulk or tonnage, and the hauling charges, which in most shipyards are made on the same basis, both tending to encourage excessive beam.

Another drawback, and a very serious one, is the fact that a boat is not considered saleable unless it is shoal enough to go to Florida by the inside route, tending to encourage shallow draft and light scantlings.

To correct the first fault should be comparatively easy. There are a number of reliable slow speed, heavy duty, four-cycle engines on the market which give their full rated power at very moderate r. p. m., and are in continuous service in fishing boats all along the coast and all the year around. Such engines as these, when fitted with the extra heavy, or "trolling," fly-wheels, are extremely smooth and reliable in operation, besides being very long-lived.

Most engines of this type will give 80% of their rated power at one-fourth throttle opening, or about 370 to 500 r. p. m., which is their most economical and smoothest speed, and it is for this condition that a cruising boat should be designed. No gasoline engine made will run continuously at full power for any length of time.

Some form of fresh water feed to the intake manifold should be fitted, and always used on long runs; about one or two drops of water per power impulse will keep the valves and spark plugs clean and cool for an indefinite period. The water, of course, should not be turned on until the engine is well warmed up, and should be turned off a few minutes before the engine is stopped.

The first consideration under the head of installation is the location of the engine in the boat. It should be amidships, or very slightly abaft amidships. In other words, the C. G. of the engine should be midway of the waterline length of the boat, with fuel and water tanks grouped closely about this point. As to the beds, the modern practice of edge-bolting to longitudinal members running the full length of the hull is excellent, but the dimensions of all of these parts should be at least double what we usually find. The ideal finishing touch would be to treat all of the woodwork below the level of the top of the floor-timbers with tar, and then fill in solid to this level with cement, leaving, of course, the necessary depressions for the base and fly-wheel. When hard, the surface of the cement should receive several coats of paint.

If the reverse gear is of the loose-cover type, the drain plug should be removed from the base and this opening connected by piping to a hand suction pump mounted in some accessible place before the engine is finally lowered onto the beds.

There should always be a stack over the engine. The stack should be sufficiently tall to insure efficient rain traps without obstructing the natural draught. A dry, water-jacketed stack-exhaust should be used. The muffler, however, should not be in the stack, as it would nearly fill up the opening and spoil the draught. The muffler and that part of the exhaust pipe which is below the stack should be heavily lagged and sewn up in canvas. The muffler should be a size or two larger than the engine ports call for, and should be made of cast-iron. The water jacketing of the exhaust pipe should stop a few inches above the point where the pipe enters the stack, and a bare pipe extend thence to within a few inches of the top. This arrangement insures a good, strong draught up the stack and almost perfect ventilation under the worst conditions of wind and weather. One need never worry about getting fresh air *in;* the real problem is to get the foul, hot air *out.*

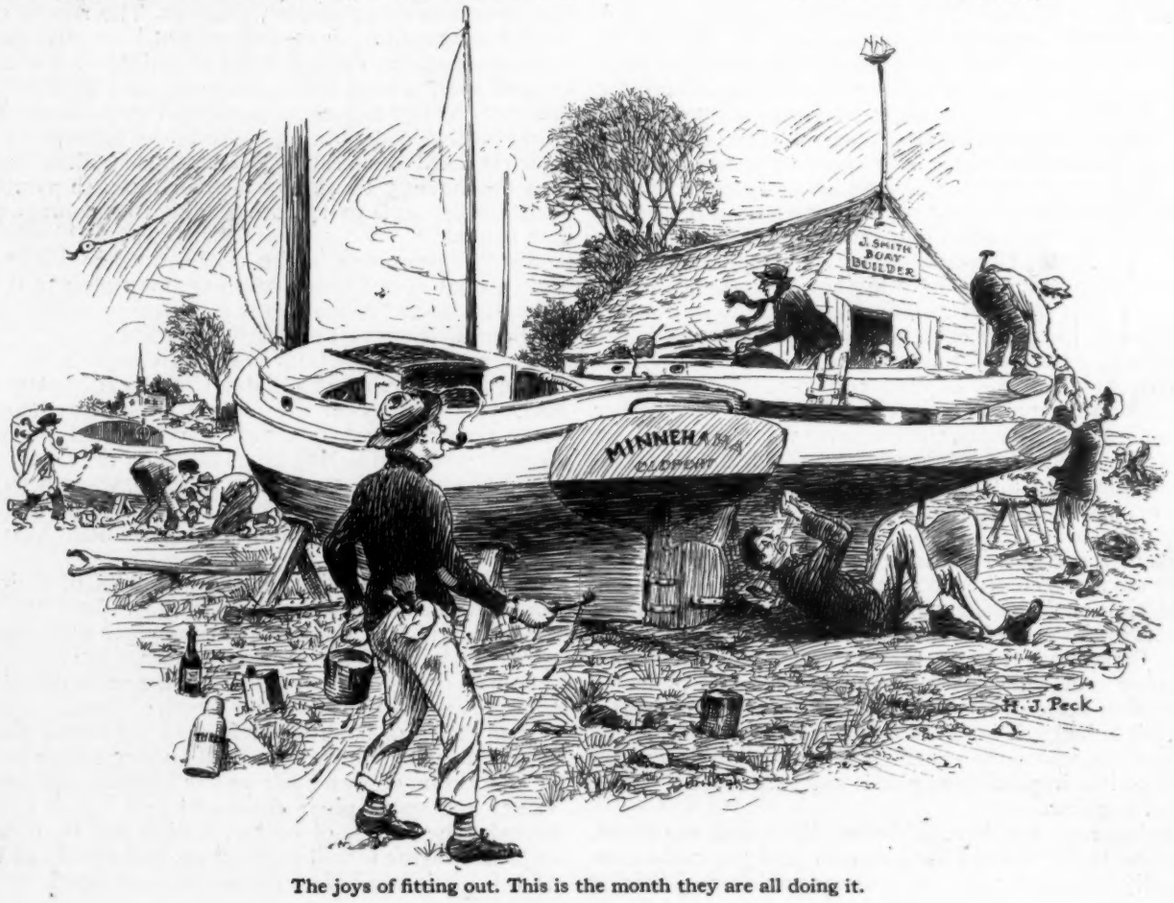
Paradoxical though it may seem, of all engine noises (this does not apply to two-cycle engines) the exhaust is the most easily silenced, whilst the hammering noise of the cooling system is apt to be the most troublesome. However, this may be entirely overcome by properly designed and adjusted check-valves, by the use of a small air-dome (of the good old-fashioned fire-engine variety), and by cutting the water line and piecing out with rubber hose in one or two places. In well-designed, slow-turning, heavy-duty engines the valves and gears make almost no noise.

As to the boats themselves, particularly those under 40 feet, less beam and more draft is the crying need. A deep, narrow boat with the weights as low as possible, and some iron on the keel, will be far more habitable in rough water than the wide, hard-bilged boat, with the weights carried high. The draft should always be one-half the beam, and a beam-length ratio of 4 to 1 for boats of 30 feet and under, gradually increasing to 5 to 1 for boats of 50 feet over all length, would seem to give far better proportions than at present exist.

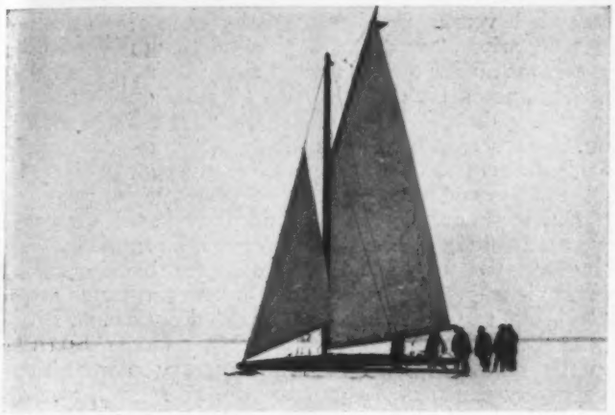
The scantlings of a cruising motor boat should be at least equal to, and preferably heavier than, those of a cruising sailboat of the same size, for the obvious reason that no one can live in comfort inside of a sounding-box. Now nothing deadens noise and discourages vibration more than big chunks of oak enclosed in a shroud of thick yellow pine. As the true cruising boat must carry ballast in any case, there is everything to be gained by putting a goodly proportion of this weight into the hull itself, and some of what is left over into iron on the keel.

For appearance's sake, if for no other reason, it would seem that the ingenuity of our naval architects should be

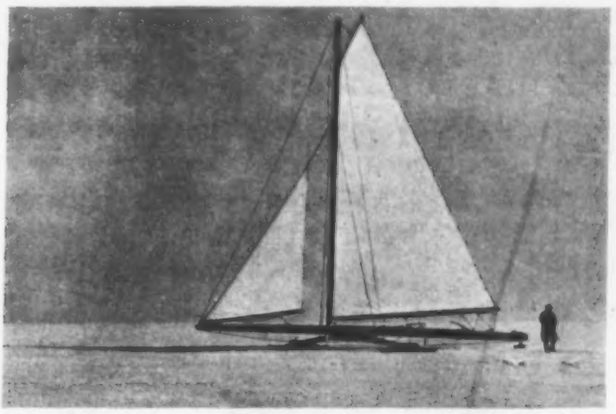
(*Continued on page 78*)



The joys of fitting out. This is the month they are all doing it.



Debutante III, owned by Douglas Van Dyke, winner of Stuart Cup.



Miss Milwaukee, a new boat owned by J. C. Van Dyke, with a high, short gaff rig.

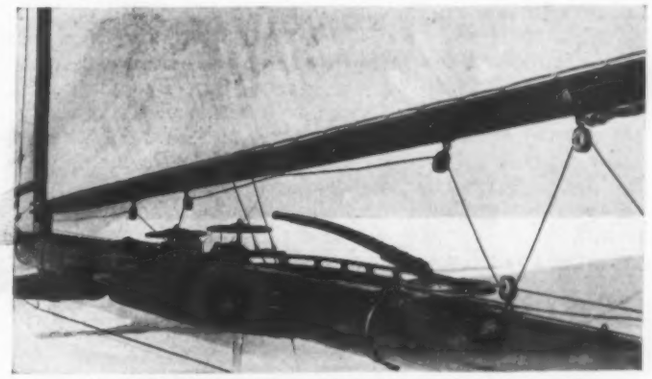
The Northwestern Ice Yachting Association Regatta

By FRANK B. SYKES

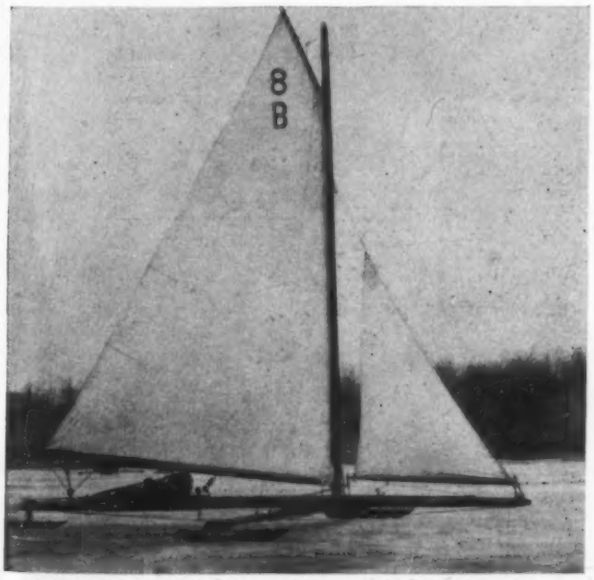
IT rained — rained hard for three days. The heavy blanket of snow that covered Pewaukee Lake, and that had since its arrival made tough going for ice-boats, soon disappeared. The thermometer mounted to record high levels. Consequently it appeared as though the opening of the annual regatta of the Northwestern Ice Yachting Association would have to be postponed.

A few days later, on Monday, February 9th, it turned cold, bitter cold in fact. Noon on the following day marked the appearance of boats on trailers hauled via the overland route from their respective lakes. Before going further let it be said that the sportsmanship of those who came from Lake Mendota at Madison to sail was indeed commendable, especially so in view of the fact that they relinquished the holding of this year's regatta on Lake Mendota, in favor of the Pewaukee Yacht Club. Boats arrived from Lake Geneva, La Belle and Mendota, and because of the favorable change of conditions the skippers realized that they were about to participate in one of the most successful of all Northwestern Regattas — providing of course that Old Man Boreas behaved.

There is no question in the writer's mind that, given a fairly smooth surface of ice, winds of the proper velocity and a fleet of the finest ice-boats ever assembled, the result will constitute the greatest of all winter sports. As was expected the largest number of entries were in the "B" Class, that is, the boat limited to 250 square feet of canvas. Ten B boats sailed. In the "A" Class, of 350 square feet of canvas, six boats were entered. Four entries constituted the "A1" or Special Class of over 350 square feet.



Cockpit of *Miss Milwaukee,* showing form of hollow backbone.



Polaris, a fast class B ice boat owned by R. S. Hamilton.

Unusual interest centered around this latter class as it included the sailing of J. C. Van Dyke's new *Miss Milwaukee,* a description of which will appear later in this article. The first race, February 11th, was sailed in a heavy northwest wind over a triangular course, 1 mile to a leg, 4 times around.

In class B, *Liberty* won, her time being 26 min., 18 sec. *Defiance* won in Class A and *Miss Milwaukee* in Class A1.

The second race was sailed the next day in a light to moderate westerly and the time was slow, the course being to windward and return. Winners were: Class B, *Baby Betts;* Class A, *Dorla;* Class A1, *Miss Milwaukee.*

The third race was again triangular, sailed in a moderate northwest wind. Winners were: Class B, *Polaris;* Class A, *Defiance;* Class A1, *Miss Milwaukee.* On February 14th the fourth race was sailed in a moderate west to northwest wind. *Liberty* again won in Class B; *Badger* in Class A, and *Miss Milwaukee* in Class A1.

On February 15th a race was sailed in Class B and was won by *Baby Betts* in light westerly winds, and a free-for-all race, sailed in a heavy northwest wind, which *Miss Milwaukee* won.

The summary follows:

RESULTS OF NORTHWESTERN REGATTA

Class "B"
Liberty M.Y.C. *1st* prize
Baby Betts P.Y.C. *2nd* prize
Polaris P.Y.C. *3rd* prize
Class "A"
Defiance M.Y.C. *1st* prize
Dorla P.Y.C. *2nd* prize
Badger M.Y.C. *3rd* prize
Class A-1
Miss Milwaukee P.Y.C. *1st* prize
Miss America M.Y.C. *2nd* prize
Shadow L.G.Y.C. *3rd* prize
Abbreviations
P.Y.C. — Pewaukee Yacht Club.
M.Y.C. — Mendota Yacht Club.
L.G.Y.C. — Lake Geneva Yacht Club.

This year's program was exceptionally interesting in that it saw a race for the famous Stuart Trophy between Mr. J. C. Van Dyke's new challenger *Miss Milwaukee* and the *Debutante III* owned by Douglas Van Dyke, of Oshkosh, which boat has claimed the title since its victory at Gull Lake, Michigan, several years ago.

Mr. Van Dyke, who, incidentally, sailed *Dorello* in the past three Mackinac Cup races, has built a wonderful boat in *Miss Milwaukee*, a boat that probably is one of the largest ever built. The backbone, of hollow construction, measures fifty feet over-all. The distance between runners is twenty-eight feet. The top of the spar is forty-seven feet off the ice. The gaff is five feet long. The mainsail and jib totals 650 sq. feet. The runner plank is of interesting construction, being of laminated spruce, with two hollow sections running to within a few inches of each end.

While the full details of the Stuart Trophy Race for the World's Championship have not yet been received, word comes just as we go to press that *Debutante III* won the series in three straight races, sailed February 19th, 20th and 28th. *Debutante III* and *Miss Milwaukee* sailed very closely. In the last race, while *Debutante* was leading slightly, *Miss Milwaukee* broke down, the track on the mast pulling loose. Wind was very heavy in last race, but the ice was poor and the time slow.

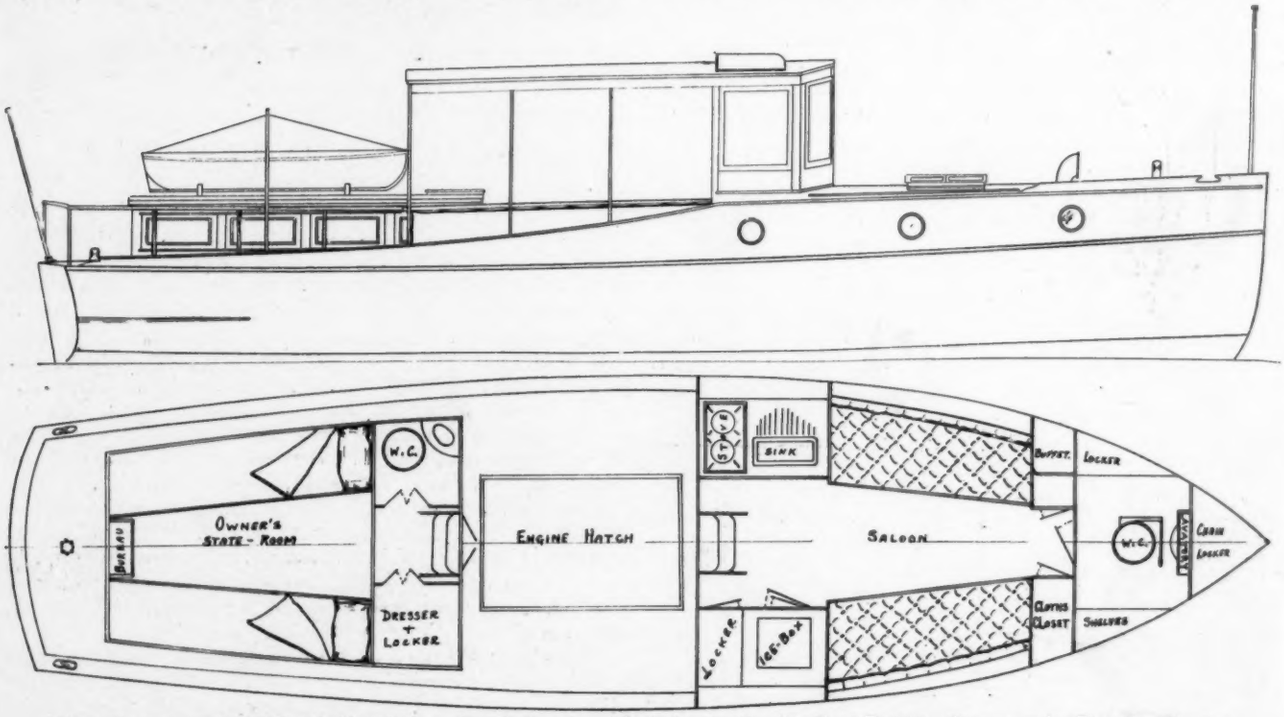
There has been so much discussion on the subject of jib-headed versus gaff-headed sails that the question naturally arises, "What about the Short High Gaff Rig"? On this particular question the writer is firm in his belief that it is not a bit of flighty imagination on his part in contending that the short gaff is due for greater recognition. However, we will avoid the question of superiority, as this is a matter based primarily on the type of boat the rig is used on and for what purpose — cruising or racing?

On an ice-boat using a Marconi, the great tendency was towards stretching the mainsail due to the single halyard being sweated up with the aid of a turnbuckle; consequently it was an easy matter to place too much stress upon same, resulting shortly in a pulled out roach. Boats of the R and Q classes on Lake Michigan have repeatedly experienced this difficulty. It is unnecessary to sweat home so securely the peak halyard of the short gaff, and although the turnbuckle is in some instances retained, there exists little danger of over-setting. However, at the same time please remember that full adjustment to any prevailing weather condition can be had.

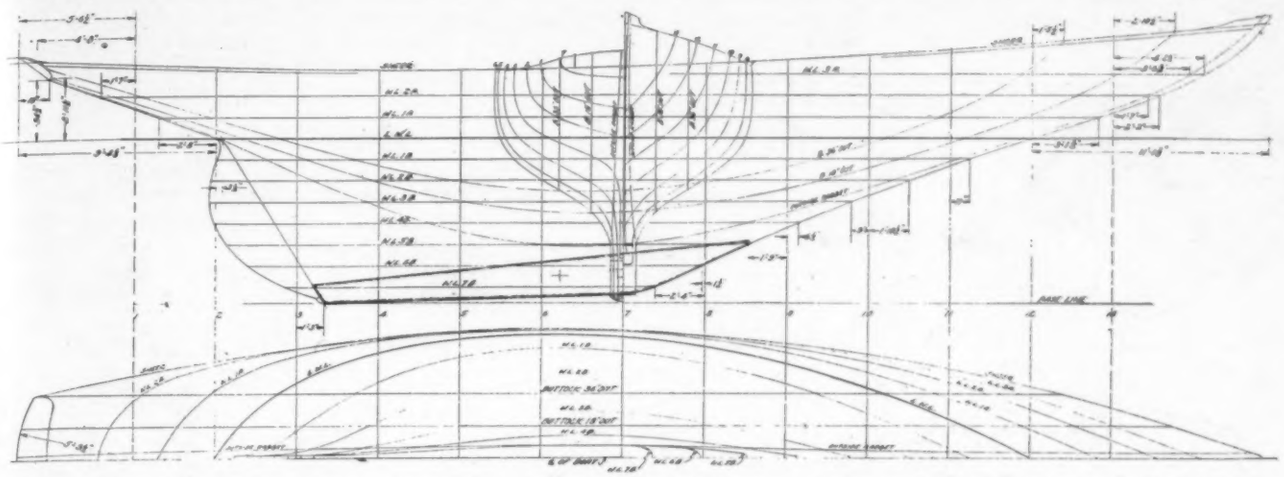
A 39-Foot Bridge Deck Cruiser

A NEW 39-foot cruiser has recently been brought out by the Gordon Boat Building Company, of New York, which exhibited a 35-footer at the New York Show that attracted a lot of attention.

The new boat is a bridge deck model and is a size between the 35-footer and the 46-foot bridge deck boat built by the same company. The use of the bridge deck makes a double cabin arrangement possible, which works out very satisfactorily, as the plans will show. The forward cabin is used as a saloon, with upper and lower berths, and with a galley at the after end. The after cabin is used as the owner's stateroom with toilet room and plenty of locker space. This arrangement can be reversed if desired, with the stateroom forward and the saloon and galley aft. Her dimensions are: l.o.a. 39′; beam, 11′; draft 3′ 3″. Several of these new models are now under construction, one being for Douglas Rigney, of New York, a member of the New York Athletic Club.



Plans of a new model 39-foot bridge deck cruiser designed and built by the Gordon Boat Building Company for Douglas Rigney.



Lines of the Seawanhaka Schooner Class, which will be raced on the Sound this summer. Sixteen are building from designs by Cox & Stevens.

The Seawanhaka One-Design Schooners

WE are glad to present herewith the plans of the Seawanhaka Schooner Class, designed by Cox & Stevens for members of the Seawanhaka Corinthian and New York Yacht Clubs. Fifteen of these craft are now building at the Bath Iron Works, and will be the cynosure of all eyes in the races and yacht club runs during the coming season.

The new boats will be 58′ 6″ o.a., 38′ w.l., 12′ beam, and 7′ 9″ draft. The designers have centered their efforts towards turning out a fair, sweet and well proportioned hull which will be easily driven by a moderate sail plan, and will afford comfortable cruising accommodations. The sheer is graceful, freeboard is ample, and ends are moderately long and well proportioned.

Below decks, a double stateroom aft is separated from the main cabin amidships by a toilet room on the port side and a linen locker and chart racks on the starboard side. Either the stateroom or the main cabin may be made up to accommodate four people when desired. A well equipped galley is forward of the main cabin, and the forecastle is fitted with bunks, lockers, toilet, etc., for a crew of two men.

All the boats will have a knockabout schooner rig with Marconi mainsails. Some will also have Marconi foresails, as shown on the plans, while others, it is said, will have gaff-headed foresails of different design, thus giving an excellent opportunity of trying out the merits of the different rigs. The total sail area is restricted to 1400 sq. ft.

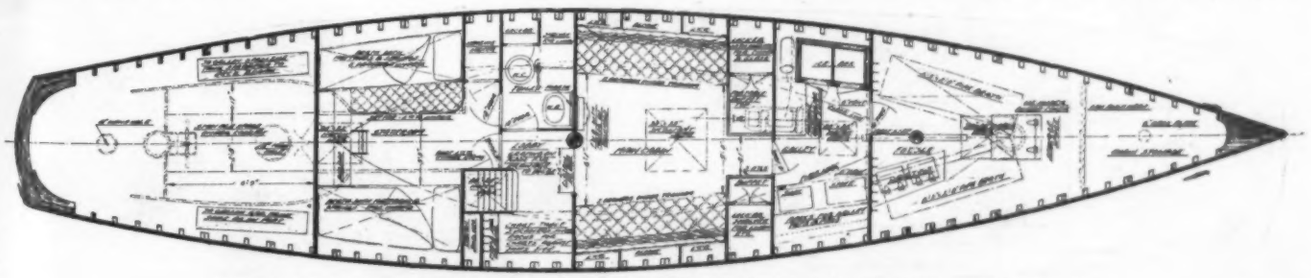
While designed principally for sailing, a small auxiliary motor of about 12 h.p. will be installed, turning a feathering propeller, which will detract very little from their sailing qualities, but which will be thoroughly appreciated when baffling calms are met with. Some of the boats have a Scripps F4 engine, while the others will have a 10-12 h.p. Kermath.

Jib-headed sail plan of the Seawanhaka Schooner Class.

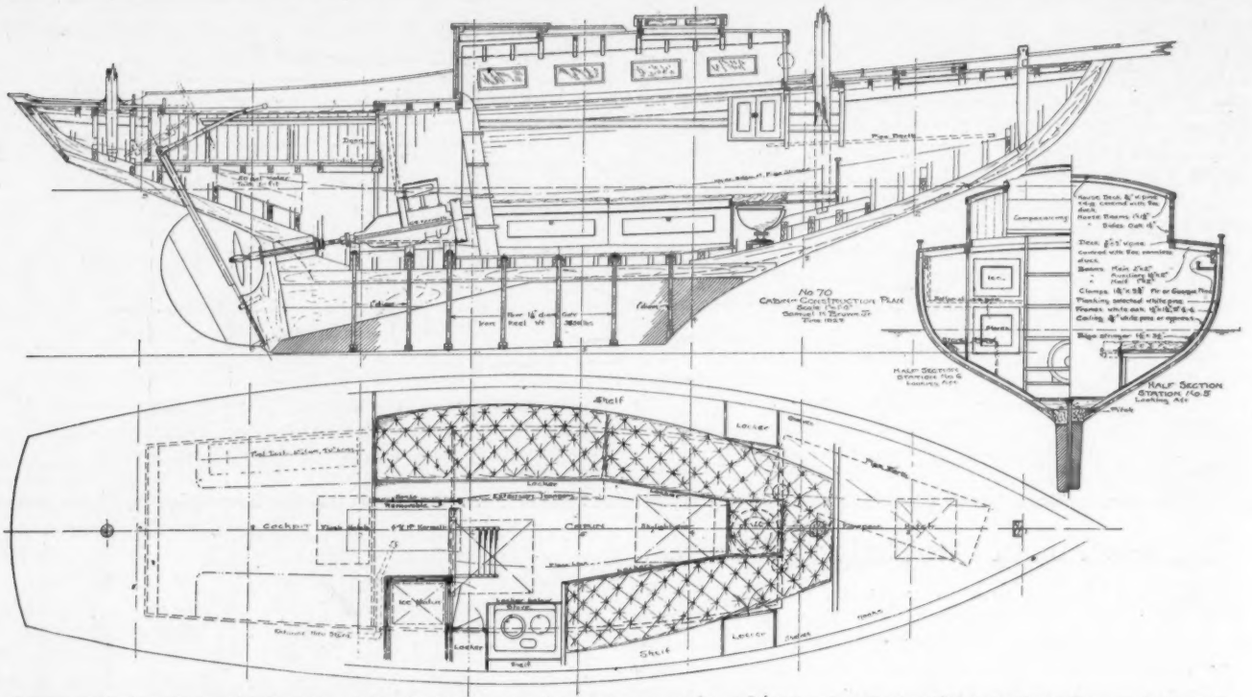
A 30-Foot Over All Cruising Yawl

THESE plans are of a small 30-foot over all auxiliary cruising yawl for use on the Great Lakes, turned out by the Cumberland Shipbuilding Company, of Portland, Maine.

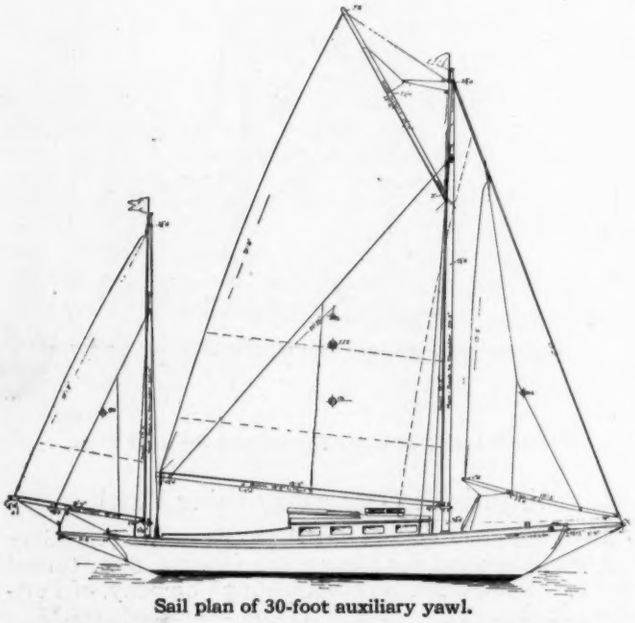
Two boats are being built from these plans by Mr. Harry Sanger, of Milwaukee, Wis., and another Great Lakes yachtsman. The cabin is laid out with three fixed berths or transoms and one pipe berth so that a party of



Accommodation plan of Cox & Stevens 38-foot water line racing schooners with auxiliary power.



Accommodation plan and inboard profile of 30-foot overall auxiliary yawl, designed by Cumberland Shipbuilding Company for the Great Lakes.



Sail plan of 30-foot auxiliary yawl.

four can be accommodated comfortably. A toilet is installed under the transom at the forward end of the cabin. The galley is located aft on the starboard side with an ice box built in under the bridge deck.

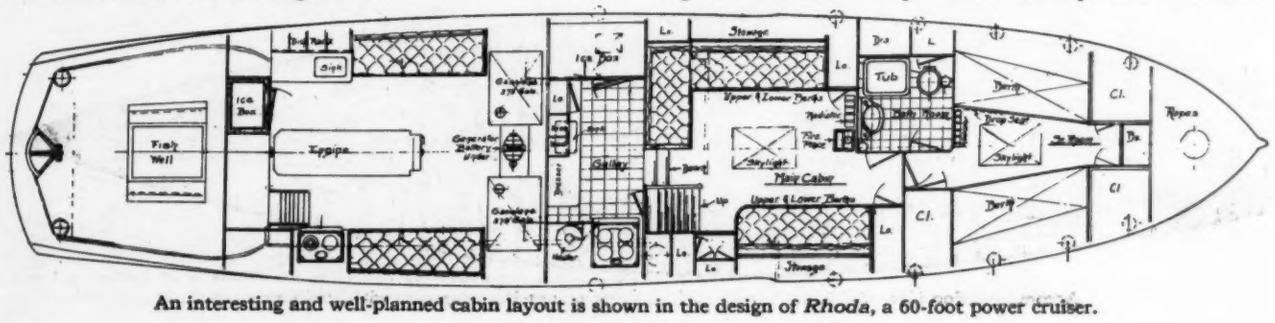
The auxiliary power will be a two-cylinder 6–8 h.p. Kermath installed under a bridge deck where it is easily accessible. The fuel tank is fitted under the side seats in the cockpit. The rig is moderate and as the mizzen is jib-headed can be easily handled by one man. Her dimensions are: length over all, 30′ 0″; length waterline, 22′ 8″; beam, 8′ 4″; draft, 4′ 6″; sail area, 522 sq. ft.; ballast (outside) 3900 lbs.

The plans of these boats have attracted much favorable attention and there will probably be a class of them built on the Lakes.

Rhoda — An Unusual 60-foot Power Cruiser

A NEW power yacht designed for general all-'round cruising that is rather unusual and yet extremely practical and good looking is shown in the plans of the *Rhoda*, turned out recently by Frederick S. Nock of East Greenwich, R. I., and delivered in November to her owner, John R. Dennis, of Providence, R. I.

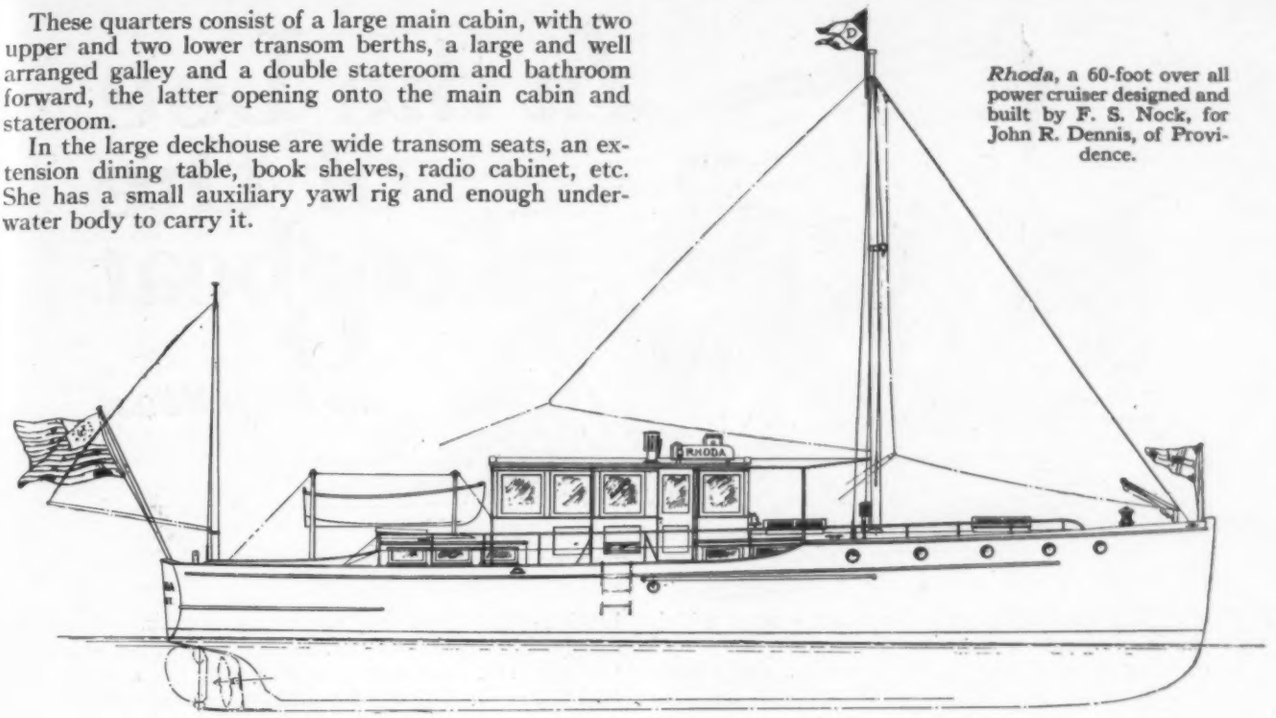
Rhoda is an able looking little ship, fit to go almost anywhere, and the designers have worked in a fine large deckhouse amidships which adds to her appearance, instead of detracting from it as is so often the case with a deckhouse on a moderate sized yacht. Her general dimensions are l.o.a. 59′ 10″, l.w.l. 58′ 8″, beam 13′; draft 4′. For power she has a 90 h.p. Sterling Trident engine installed aft under the trunk cabin, where there is full head room. This arrangement allows the owner's quarters to be all together in the midships and forward part of the boat.



An interesting and well-planned cabin layout is shown in the design of *Rhoda*, a 60-foot power cruiser.

These quarters consist of a large main cabin, with two upper and two lower transom berths, a large and well arranged galley and a double stateroom and bathroom forward, the latter opening onto the main cabin and stateroom.

In the large deckhouse are wide transom seats, an extension dining table, book shelves, radio cabinet, etc. She has a small auxiliary yawl rig and enough underwater body to carry it.



Rhoda, a 60-foot over all power cruiser designed and built by F. S. Nock, for John R. Dennis, of Providence.

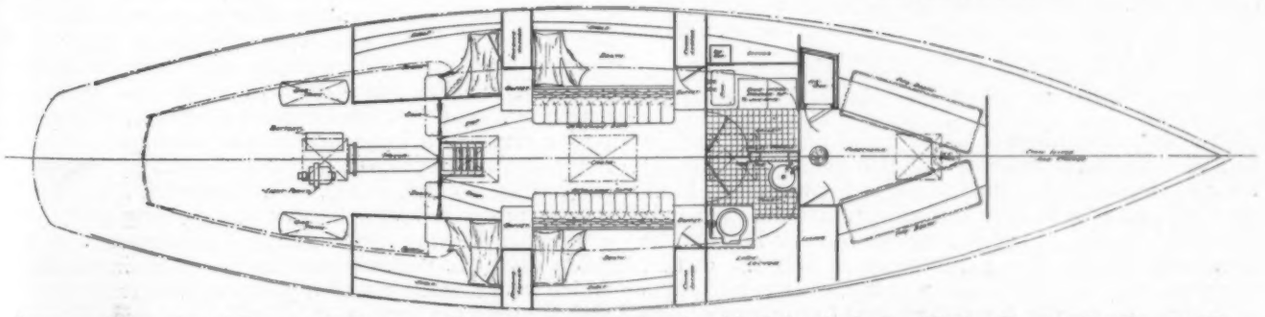
Dyon, a Cruising Sloop

AN attractive new cruising sloop that made her appearance last year was the *Dyon*, designed and built by the Luders Marine Construction Co., for Mr. Philip L. Smith, of New York and Tenant's Harbor, Maine. As the yacht was taken to Maine as soon as she was completed last summer, and was kept there throughout the season, the yachtsmen on the Sound had little chance to see her, and we are privileged to publish the plans herewith.

In general, the design follows the trend of the Universal Rule racing sloops, with slightly shorter ends and a pleasing, yet not excessive sheer that is absent in many of our out-and-out racing boats. Her general dimensions are: l.o.a. 52 ft.; w.l. 36 ft.; beam, 13 ft. 4 in.; draft, 7 ft.

She is slightly shorter than the Larchmont O Class, though with a little more beam. This beam makes possible a very roomy and comfortable layout below and the boat is not cramped or pinched in that particular. There is a large roomy cockpit, a main cabin with two quarter-berths and two built-in berths with transoms in front, an unusual amount of locker space and a large toilet room, galley and a forecastle forward, with berths for two men. She is an exceedingly handsome craft, teak being used for the rail and deck trim, and she is fully up to the high standard of work of this yard.

Sail plan of *Dyon*.



Accommodation plan of *Dyon*, a 52-foot over all auxiliary sloop designed and built by the Luders Marine Construction Co., for Mr. P. L. Smith.

In the Lee of the Longboat

by Cap Stan

THIS New York-Gloucester Race is a contest which should make a strong appeal to racing men and cruising men alike. Without doubt, the course through Nantucket Shoals is a bit hazardous, particularly in thick weather. But the Mackinac Race has been run year after year through shoal-infested waters, and but one craft has come to grief. If the fresh water sailors can do it, then it's up to the salt water tars to do the same. The course provides a wonderful chance for the skilled sailor to pilot his craft to victory by figuring his courses and tides to a nicety, whereas the bungler on a fast boat will have plenty of chances to slip up, and may get into serious trouble. And judging from the entries already made, there'll be a hot contest between some of our fastest cruising sloops, schooners and yawls. While handling and Lady Luck will both hold strong hands, still we'll get some kind of a line on the speed merits of several types of boat, and the result should make fine fodder for the rocking chair fleet to chew on during the off season.

* * *

This same race gives the owners of cruising power boats an excellent chance to come up to scratch and prove whether or not they have any faith in their boats, and whether or not they have any competitive spirit in their make-up. The control established at the western entrance of the Cape Cod Canal really makes it two races of a day each, with a rest in between. There is nothing about the course which any legitimate cruiser should balk at, and owners and crews should have a bang-up time at the Gloucester rendezvous, and from there they have a wonderful cruising ground opening up for a week's cruise to the eastward, with Marblehead Race Week as an attraction on the return trip. Come to life, power boatmen, and let's see the kind of stuff you're made of.

* * *

A perusal of the plans of the "single-stick schooner" in the last issue leaves me with mingled feelings of admiration and despair. The admiration is for the sweet-lined hull which Charlie Mower turned out, and the despair is occasioned by the sail plan and the interior layout, the latter undoubtedly being drawn up to suit the owner. Six people may be able to sleep in her, — if two of them don't mind doing the Australian crawl over one of the half dozen water tanks in order to get into the after berths, — but how they are going to cook, eat and loaf around is a mystery to me. The cook can't get in front of the stove: he must reach across a corner of it for his pots and pans — and he must stand on the sloping bilge while doing it, as the stove is placed well beyond the floor line. The built-in berths in the main cabin are made possible only at the expense of transoms too narrow to sit comfortably upon, and unduly narrow floor space — about the only place to put your feet is in the lap of the chap opposite.

The short sloop rig may do, though I doubt it's ability to drive the hull in average weather even with the various jib combinations — and that spinnaker pole-bowsprit is a dubious experiment, anyway. Cut off a foot or two from the main boom, give her a mizzen and a bowsprit, and you'd get some sail to drive her — and a better combination for shortening down, too. Yes, the rig and layout seem to me to just about ruin a darn fine hull. But it's the owner who's paying the freight, and if he likes it, — Boy, set 'em up in the other alley!

* * *

Speaking of racing, Herb Marples makes a suggestion which I cheerfully pass along to those race committees who want to be strictly up-to-date, viz: Paint all turning marks like barber poles, to suggest a close shave.

* * *

There are many things about "Hank" Rowland's ketch-schooner *Mary* which I might comment upon, such as her peculiar proportions, strange rig, and apparent lack of sailing ability — for a boat which never has to shorten down even in the hardest blow must be deathly slow in average weather. But what rivets my attention is her ability to make good speed in rough water under power — and make fine weather of it into the bargain. From John Rowland's description of her speed and action in a head sea, she has it all over most of our small power cruisers, a large majority of which are about as miserable and hopeless a proposition in sloppy going as a dog trying to climb a tree. So even though *Mary* isn't as speedy under sail as a flapper at a petting party, we'll excuse her designer-owner-author if his breast swells with pride over her performance under power in conditions which would make many a power driven craft turn tail and hunt a snug anchorage.

(*Continued on page 80*)

The International Model Yacht Race

By H. B. Tucker, *Chairman*,
Model Yachting Association

IT was with the liveliest feelings of satisfaction that we, in England, received an American challenge for the *Yachting Monthly* Cup. Ever since Mr. W. J. Daniels made his trip to the United States in 1922, we on this side have been eagerly awaiting your return visit. Mr. Daniels' visit was a very plucky singlehanded effort, but on his return and in anticipation of your coming over, the Y. M. Cup was instituted, the present rating rule framed and the whole matter put into the hands of our National Authority, the Model Yachting Association. Your challenge comes from the Model Yachting Association of America, and therefore, instead of a plucky effort on the part of one individual, it becomes a proper international contest of the greatest importance. And we in England consider that an international contest between the "States" and Great Britain represents the high water mark that has been reached in the sport.

Of course it may well happen that Mr. Daniels will have the honor of defending the Cup against your boat; but before he does so, he will have to defeat many doughty rivals, not only from England, but from Ireland, Scotland and Wales as well. Our Selection Races will occupy four days and it is expected that nearly forty boats will struggle for the coveted honor.

When *Polka Dot* vanquished *Endeavour*, we were disappointed; but frankly we were not at all sure whether the best boat really won, or whether the conditions of sailing from skiffs put Mr. Daniels completely out of court. The present races will be sailed on a large pond from the banks, and we consider that this is a much better test, as once a boat has left her owner's control, she cannot be touched or trimmed until she comes to shore. This naturally calls for a nicety in trim, as the slightest mistake is fatal and cannot be rectified. Further, a boat has to be not only very steady but very sensitive, and able to automatically adjust herself to the least variation of the wind. She must not only luff and eat up in the puffs, but must automatically bear away and keep going as the puff lightens.

As the conditions under which the race will be sailed may be strange to many of your readers, I will endeavor to give some slight idea of exactly how a model yacht race of this nature is carried out in England.

Racing models from the banks of one of the English lakes.

Usually the pond chosen is about three times as long as it is wide, and the race is sailed the long way of the pond. Each way of the pond is styled a "Board," and two boards (or up and down the pond) is called a "Heat." Points are scored for each board, a weather board counting 3 points and a leeward board counting 2 points. Should the yachts be able to lie through both ways without tacking, so that it is a reach, only 2 points are counted each way. At the start of the racing the Officer of the Day decides whether the wind warrants the scoring being 3 and 2, or 2 and 2.

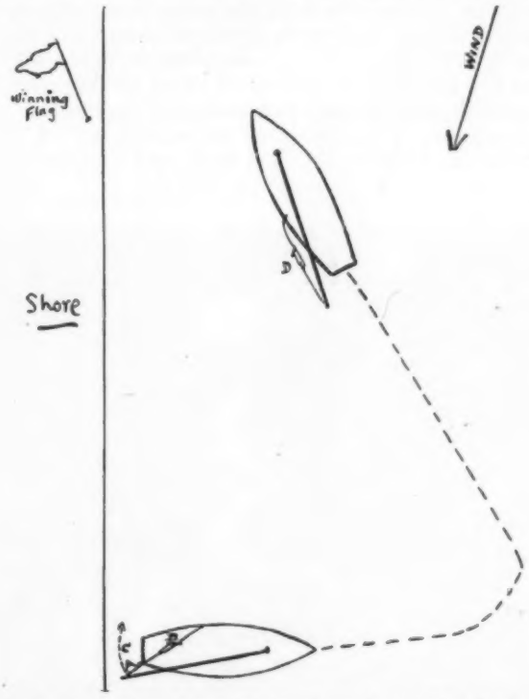
At the start of the race, a coin is spun to decide which of the yachts shall take the weather berth. The starter places the skippers a reasonable distance apart and gives the word to go. At the start, but at no other time during a board, the skipper may give his yacht a push off. Should the yachts foul at the start, a fresh start is given. Should they foul a second time, as it is obvious that the weather boat is dropping down on to the leeward one, the starter orders them to change places.

Any fouls likely to affect results are immediately ordered resailed by the Officer of the Day. For the second heat, the yacht that lost the toss, takes the weather berth at the start. Dead-heats are resailed.

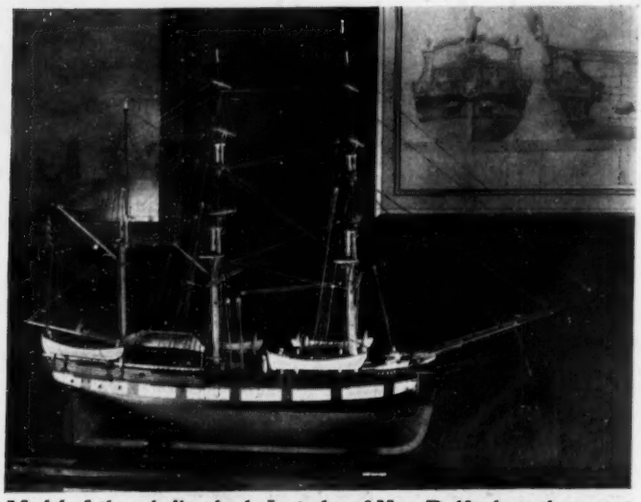
It might be as well for me to quote the Rules affecting the actual sailing and then make a few explanatory remarks.

Rule 8. — Stations and Starting. Stations (weather and leeward berths) shall be drawn for before starting, and competitors must both start on the same tack (with sails full and drawing), and from the positions (or starting marks) duly determined by the starter. The starting marks shall not be less than three yards apart.

Rule 9. — Propulsion. Skippers shall be allowed to push their yachts at the start only, by hand or by pole, but at no other time during a board may the yachts be propelled otherwise than by the action of the wind, unless the yacht gets aground, when she may be pushed off.



Sketch showing action of guy. The yacht makes a short hook off to fetch the winning line on Starboard Tack. A—Rubber guy stretched on weather side. B—Cord tail with Bowsie to adjust tension. C indicates tendency to pull boom a-weather. D—Guy idle on lee side after tacking.



Model of the whaling bark *Lagoda*, of New Bedford, at the recent Old Ship Model Society Exhibit. Loaned by Cyril Crimmings.

Poles to be of uniform length, but not longer than is customary or necessary on the particular water.

Rule 10. — Entering the water. A skipper shall not enter the water to turn, or start a yacht, except at waters where it is customary to use waders or water boots, but in no case shall a pole be used in conjunction with waders or water boots.

Rule 11. — Handling Yachts. Whenever a yacht comes to shore she must either: —

(a) be Tacked, or
(b) be Retrimmed.

For (a) in windward boards, yachts shall be turned fairly about by the Skipper taking a firm stand and (1) turning the yacht off by placing the stick or pole against her lee bow, and (2) he may also steady her round with the pole against the lee side of the counter as she sails out. In any case her headsail must fairly and definitely fill on the off-shore tack before she leaves her skipper's control. Failure to do this shall entail disqualification for the board. No other part of the yacht, sails or gear may be touched unless to readjust her trim or to avoid an obstruction. When and if a re-trim has been effected, the model shall be put off by hand only. A yacht put off on the "Guy" and failing to "Break tack" * and returning to the shore from which she was put off shall be "Retrimmed."†

For (b) in leeward boards (or reaching) the yacht shall be retrimmed and re-started by hand every time she comes to shore.

The skipper must remain stationary while retrimming or turning his yacht, and the yacht must be stopped whilst altering trim. Whenever a yacht is put about, or re-started after a re-trim, her way must not be accelerated.

The "Guy" properly applied constitutes a re-trim, but *a jibe does not.*

The spinnaker must not be set so as to increase the measured fore triangle.

Rule 12. — Avoiding Collision. Tacking, guying, starting a yacht after a re-trim, or after coming to shore foul, may not be done so as to involve the immediate risk of collision.

Rule 13. — Collisions and Fouls. (a) If a competing pair foul within six yards (or a similar distance previously settled by the Officer of the Day) of the starting-point, they shall be re-started from their original positions. Should the foul recur, the starter may order them to start further apart, or to change positions.

(b) If a competing pair foul outside the distance mentioned in (a) the board shall be resailed on the order of the Officer of the Day, except as provided in Rules 12 and 13 (c) and (d).

(c) If one of the pair fouls an obstruction the board shall be re-sailed, unless the Officer of the Day is of opinion that she had no chance of winning the board.

(d) Should two yachts come to shore foul (covering each other) that which is to windward has the right to re-start first: but if either require adjustment, then that which is first ready may be re-started first, in which case the yacht must re-start from a position astern of the other. Neither may be advanced to effect a re-trim.

Rule 15. — Changing Sails. Sails may be changed at any time, provided such change does not increase the yacht's certified rating.

The water selected will be of sufficient depth to allow the yachts to be afloat alongside and there will be no shallows. Waders will, therefore, be unnecessary, but the skipper and his mate will require crepe rubber soles or Plimsolls, as the edges may be concrete and slope a little.

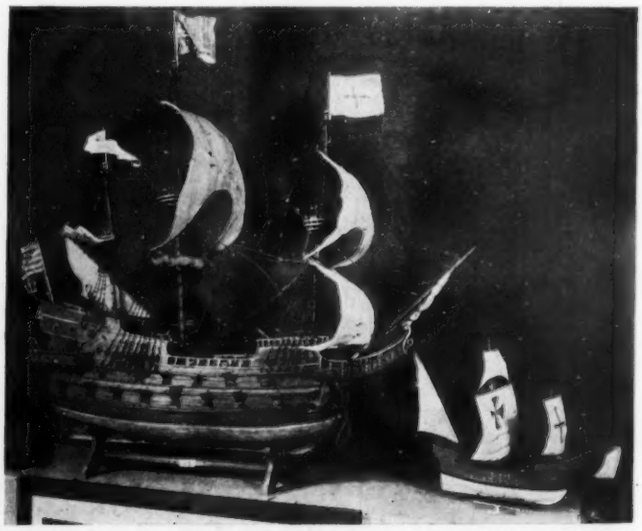
With regard to the actual handling of the boats, the essence in tacking is that the skipper must not move whilst turning the boat and that his pole must be against the boat's bow. It must not be put on her deck or hooked in the jib tack. The poles required will be provided, and they must not have any hook or other projection capable of being hooked over the boat's deck rail or anywhere else. The boat must on no account be drawn forward in tacking.

When a boat is being retrimmed, she must always be distinctly stopped and some alteration must be made. It is not enough to alter the trim without stopping the boat.

The only other point that may require explanation is the word "Guy" and the use of the "Guy."

The "Guy" is a piece of elastic with a cord tail, adjustable with a "bowsie" to vary the tension. It is rigged from the extreme end of the boom to a point on the rail about amidships. When a boat is not required to sail right across the lake but to make a short leg off shore and then come about, this is used. Suppose that the boat is on the left hand side of the lake and we require her to make a short leg off-shore on the port tack, and then put herself

(*Continued on page 84*)



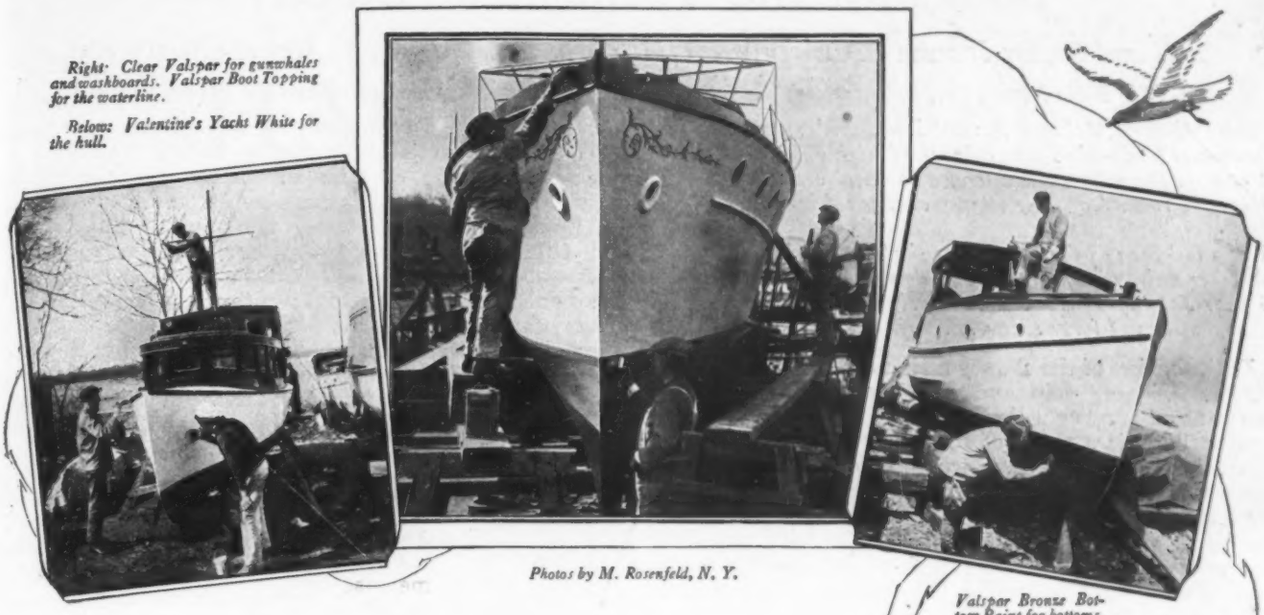
Decorative model of a Spanish ship of about 1588, exhibited by the Old Ship Model Society.

*"Failure to break Tack" is when a yacht has been correctly turned with her headsails filled on the off-shore tack, and she returns to the same shore on the same tack, i. e. not having broken tack by the action of the "Guy."

†A "Re-trim" is a readjustment of a yacht's sails, gear or rudder that will allow her to proceed fairly on her course towards the winning line.

Right: Clear Valspar for gunwhales and washboards. Valspar Boot Topping for the waterline.

Below: Valentine's Yacht White for the hull.



Photos by M. Rosenfeld, N. Y.

Valspar Bronze Bottom Paint for bottoms.

Valspar Ahoy!

Spring is in the offing! It's time to peel your weather eye and take a good look at that boat of yours.

When she slips into the water, you'll be proud of her, shining in her new dress of paint and varnish. And you can be proud of her *all* season, if you use Valspar!

Valspar is the one absolutely waterproof varnish. Sun and rain, salt water, fog and steam—none of these can make Valspar turn white. It is easy to apply, dries dust free in two hours and hard overnight.

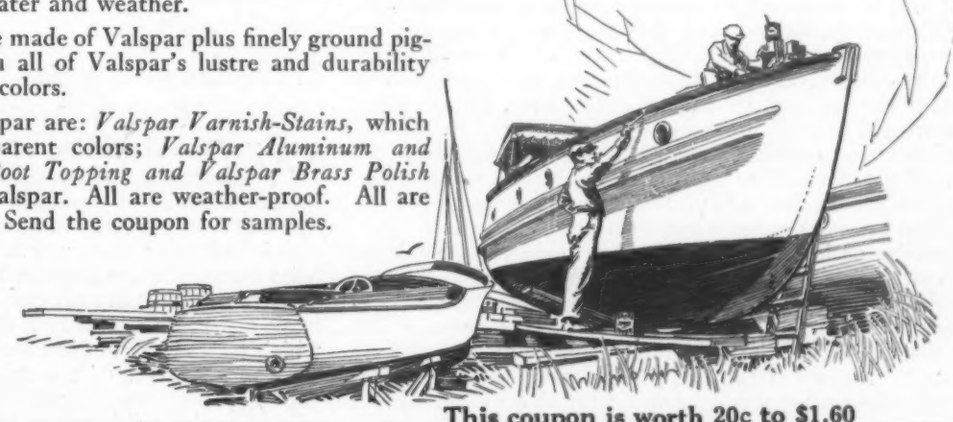
Valspar Bronze Bottom Paint is made of pure French Bronze combined with Valspar. Two coats of this anti-fouling mixture will keep the bottom of your boat absolutely free from barnacles all season.

Valentine's Yacht White and Yacht Black are the best paints you can get for your boat. They keep their good appearance all season in spite of water and weather.

Valspar-Enamels are made of Valspar plus finely ground pigments. They give you all of Valspar's lustre and durability in beautiful, gleaming colors.

Other forms of Valspar are: *Valspar Varnish-Stains*, which are Valspar in transparent colors; *Valspar Aluminum and Gold Paint; Valspar Boot Topping and Valspar Brass Polish Preservative.* All are Valspar. All are weather-proof. All are absolutely waterproof. Send the coupon for samples.

Clear Valspar for spars. Photo by J. Armstrong Roberts



Valspar-Enamels come in Red—light and deep; Blue—light, medium and deep; Green—medium and deep; Ivory, Bright Yellow, Vermilion, Gray and Brown. Also Black, White, Bronze, Aluminum, Gold and Flat Black.

Valspar Varnish-Stains come in Light or Dark Oak, Walnut, Mahogany, Cherry and Moss-Green.

This coupon is worth 20c to $1.60

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I enclose dealer's name and stamps—20c for each 40c sample can checked at right. (Only one sample of each product supplied at this special price. Write plainly.)
Valspar Instruction Book with Color Charts, 15c extra.

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Valspar Book	☐

Books for the Yachtsman's Library

Roll and Go, By Joanna C. Colcord

(The Bobbs Merrill Co., Indianapolis)

"Johnny Parrot, Johnny Parrot! I can see 'em now,
Southeast trade-wind seas a-breakin' high above the bow.
I can see the yellow oilskins of a shoutin' crew;
Hear the roarin' of their chanty chorus led by you.

"I can feel the clipper tremble as she lifts her feet,
An' her dainty bows are dancin' down the sea's wide street.
I hear Johnny Parrot singin' — singin' 'Roll an' go.'
An' the sons of forty seaports roarin' 'Yo-heave-ho!'"

YES, the day of the chanty man, with his high pitched voice singing solo and the hearty, deep-throated chorus as all hands got their backs on topsail halliards or capstan bars, is a thing of the past. When the present generation has passed away it will be only through such books as Miss Joanna Colcord's *Roll and Go* that this particular part of the seaman's life will be known, and the words and music therein will be the only record of the use of song at sea to cheer the crew and ease the heavy hauling and long drags which the handling of heavy gear entailed on a short crew.

I asked a friend the other day, who is still going to sea as master of a big schooner, with a steam donkey engine for handling sail and ground tackle, how long it had been since he had heard a chanty sung. He thought a moment and surprised me by answering "About eight years. We use steam now to do all the heavy work about the ship. There probably ain't one of the gang for'ard today that knows a chanty."

There have been books on chanties before, but none, to our mind, as complete and as satisfying as *Roll and Go.* The author writes from first-hand knowledge of ships and sailors, having been born at sea in the cabin of a sailing ship, the daughter of a ship master, and having spent most of her life to the age of eighteen on board her father's vessel in the China trade. So she has heard all the chanties, as sung by innumerable crews, knows the particular use to which each was put, and is familiar with the improvising to which each was susceptible by a good chantyman.

In *Roll and Go.* Miss Colcord has divided the chanties into groups so as to give the uninitiated a better understanding of the use to which they were put. There are the short-drag chanties, used when only a few strong pulls were necessary, such as Haul Away, Joe, and Johnny Boker; the halliard chanties for the long, heavy tasks aboard ship, such as manning topsail or topgallant halliards, and the like, with the whole crew tailed out on the fall; and windlass or capstan chanties, sung at the long back-breaking job of manning windlass brakes or capstan bars to heave in and break out.

Besides giving the music to all of these chanties, Miss Colcord gives the words most commonly sung to them in British and American ships; but as a chanty solo was so much a matter of improvising, taking the hero of the chanty all around the world and back again, and making sarcastic thrusts at the skipper, mate and ship (not forgetting the grub), it is a hard matter to set down all the words ever sung to any particular air. But in *Roll and Go* is found most of the common versions that were sung, and all of the spirit.

There are also many fine illustrations of some of the famous ships of the past, including the *Andrew Jackson, Sea Witch, Young America* and the ships of a later era, such as the *Mary L. Stone* and the bark *Harvard,* the latter commanded by the author's father.

It is a book that every lover of the sea should have.

H. L. S.

Seamen All, By E. Keble Chatterton

(Little, Brown and Co., 1924)

AS a selection of representative adventures from each era of sailing and steamship sailing, and also a typical assembling of tales of almost every type of disaster at sea, this book is interesting from cover to cover, and a masterpiece. I was grieved to have to come to the end of the record of those days when ships paved the ocean with wooden bottoms, and real men held sway in fair weather and foul, with real adventure in the offing.

Yet, as Chatterton says, with all our radio and storm-signals, our charted seas and fool-proof ships, there is Old Ocean still to be reckoned with, and her ways are the ways of the wind and the wave; unaccountable and wild, needing, as she always has, daring men and brave to rule her. Nevertheless the romance of sail has gone, and to some extent the mists have lifted from the enchanted life, and we must gather shells ashore of our Isles of Enchantment.

Comparing this book to Chatterton's others, one realizes that it has been a far more difficult work of compilation, since the reader is more apt to have to read slowly a collection of incidents than an historical narrative. It is consequently natural that this book should not stand the test of being read through rapidly, and that there should be successions of incidents of so harrowing a nature that he is left breathless. Longer transitions would have obviated this, and have proven Chatterton as good an editor as he is an historian, but it is only in spots that one notices this lack, and the book as a whole is quite what he promises that it will be; a collection of "true stories so amazing that they are far more dramatic and thrilling than some of the best sea fiction; in fact you will notice that in some cases the strangeness of the events would be really too extreme for a novelist. That which stands out in them all is the limitless sphere for doing daring things when once a man has devoted himself to seafaring."

Certainly it is true that he fulfills the purpose of his work, for no one can read it without being sure that he has done a great deal "to keep alive that seafaring spirit on which have depended the exploration and development of the whole maritime world."

ARTHUR MASON.

The Return of the "Cutty Sark," By C. Fox Smith

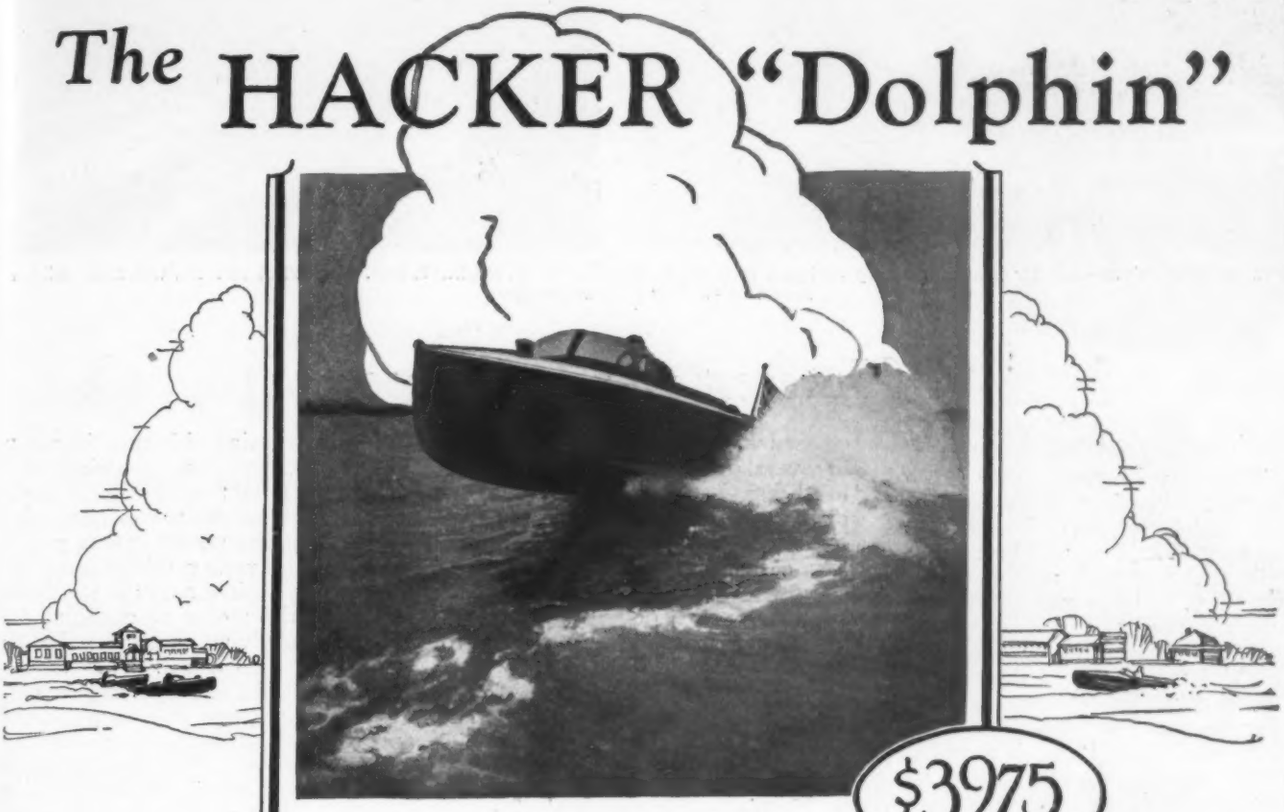
(Charles E. Lauriat Company, 1925)

WITH the passing of the clipper ship and the disappearance of sail from the surface of the sea, the perpetuation of a picture of the life in the old clippers by an intimate history of some of the famous ships of the past is in itself a thing worth while. And this is just what Miss Fox Smith has done in *The Return of the Cutty Sark.* It is true that Basil Lubbock has done it more fully in his book of a year ago, called the *Log of the Cutty Sark,* in which he has written her story almost entirely from the various log books of the ship; but Miss Smith has told the story in more condensed form, through the personality of the various skippers who had command of the old ship. It is, of course, true that a skipper stamps his personality on a ship, and in the last analysis it is usually the skipper that "makes" a ship and is responsible for her reputation.

Down at the bottom of his apparently reserved and unemotional nature there must be a bit of sentiment in your average Britisher. And this was manifested in the saving of the *Cutty Sark* from the "bone yard" after she

(Continued on page 80)

The HACKER "Dolphin"



A perfectly appointed all-purpose runabout

The new Dolphin – a superbly designed and created twenty-six foot mahogany runabout – offers the owner a rare combination of roomy comfort and speed. Powered with the ninety-horse Scripps marine motor, it is a sturdy craft, mechanically fit to perform in even the hands of a novice.

Perfectly poised and fleet, the Dolphin attains speeds up to 30 miles an hour, riding high and dry in any weather. At the wheel you immediately appreciate its grace and balance, its ease of maneuvering and unexcelled performance. In every way the Dolphin fulfills your personal ideal of boating refinements.

The Belle Isle Super Bear Cat is a larger craft with even greater speed – accepted everywhere as the finest runabout built

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DETROIT

Belle Isle "BEARCAT"

HACKER "Dolphin"

Sixty-three hundred East Jefferson Ave.

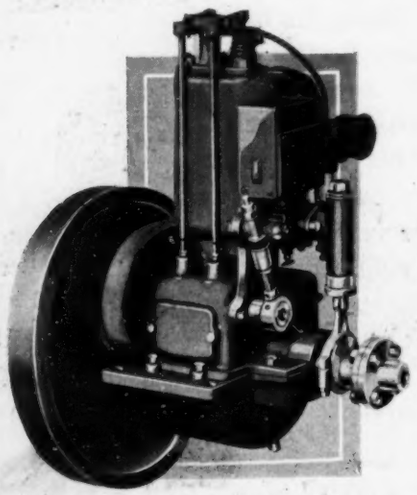
Bow and stern views of a new sea skiff recently designed as a stock model by G. T. Backus & Son. A speed of 18 miles was made with a model LC-41 Fay & Bowen engine.

Of Interest to the Skipper

Two New Gray Models

The Gray Marine Motor Co., of Detroit, have just announced two new models to be added to their line for 1925. The first will be a single-cylinder, four-cycle model developing 5 h.p. to be known as Model O, and the second is a four-cylinder, four-cycle engine known as Model ZB, a development of their famous Model Z, which has become so popular the past few years.

Model O is 3¾ inches bore and 4½ inches stroke, overhead valve construction, suitable for fishing boats, work boats, tenders and small auxiliaries. Most of the parts are oversize, assuring long, continuous service, the bearings being bronze back and interchangeable. The weight is only 165 lbs. Wico magneto is standard equipment, though timer without magneto may be had at a lower price.



New Gray 5 h.p. Model O Motor.

The motor is provided with Schebler carburetor with hot air connection to exhaust, and hot spot intake manifold. Water pump is large, cooling efficiently at 125 r.p.m. for trolling. The price ranges from $99.00 to $135.00 according to equipment.

The Model ZB, an improved Model Z, has increased power, decreased weight, and is more compact in several dimensions. A new cylinder head has been designed, incorporating the latest engineering practice for increasing the power of the motor at high speeds. This model, conservatively rated at 14–22 h.p., may be bought with or without built-in clutch, at prices from $235.00 to $466.00.

Fay & Bowen Motors in Stock Sea Skiffs

G. T. Backus & Son, of Fort Pierce, Florida, recently ran exhaustive trials of a new model sea skiff which proved so successful that they have decided to build these boats as stock models. The new boat is 22 feet long and 6 feet beam. Equipped with a Model LC-41 Fay & Bowen motor, this craft made 18 miles an hour consistently, a high rate of speed considering the beam of the boat. Backus and Son were so pleased with the performance of the motor that they have decided to make it the standard power plant of the new stock model.

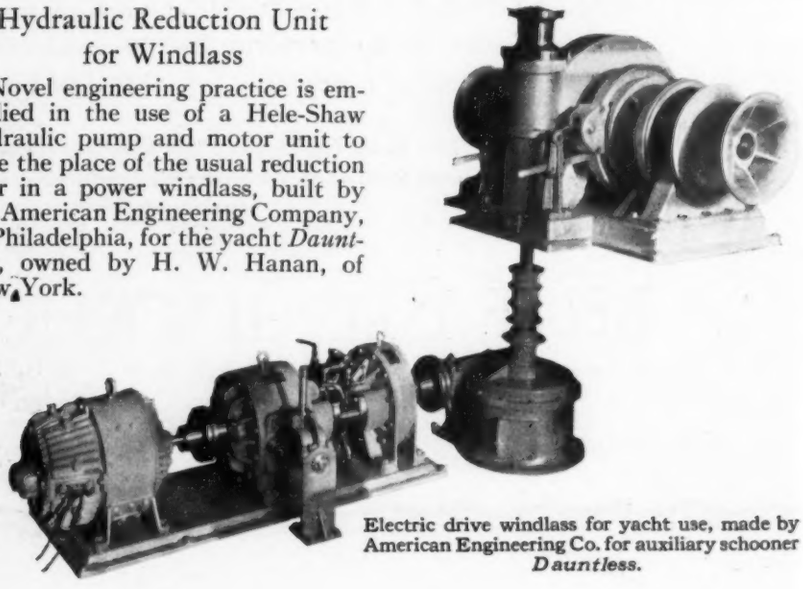
Hydraulic Reduction Unit for Windlass

Novel engineering practice is embodied in the use of a Hele-Shaw hydraulic pump and motor unit to take the place of the usual reduction gear in a power windlass, built by the American Engineering Company, of Philadelphia, for the yacht *Dauntless*, owned by H. W. Hanan, of New York.

By interposing this unit between the electric motor and the windlass a maximum reduction of 850 to 1 is obtained without the use of gears. By controlling the stroke of the pump plungers this ratio can be changed to obtain any desired reduction without stopping the motor or changing its speed, thus giving unusual flexibility and ease of control. This device eliminates all the mechanical disadvantages inherent in a complicated nest of gears, including the possibility of gear stripping, and gives a much higher mechanical efficiency than could be had with gears. Its compactness saves a great deal of space, which is especially advantageous on shipboard. It also insures a practically noiseless drive for the windlass, a feature that is much appreciated on a yacht, and which was the subject of much favorable comment at the test of the windlass after it was installed on Mr. Hanan's yacht.

Hall-Scott Opens New York Office

The Hall-Scott Motor Car Co., manufacturers of the well known



Electric drive windlass for yacht use, made by American Engineering Co. for auxiliary schooner *Dauntless*.

Scripps

"The Motor that Crossed the Atlantic"

And why experiment?

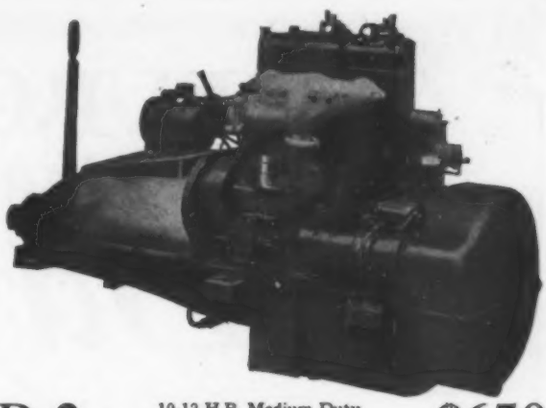
THE motor means everything in making your boat a success. It is poor business to gamble on anything new and untried whose chief attraction may be a low price and a long promise.

Every engine in the SCRIPPS line is time tried and proven, not in any one locality or in one or two boats, but in thousands of hulls in all parts of the world.

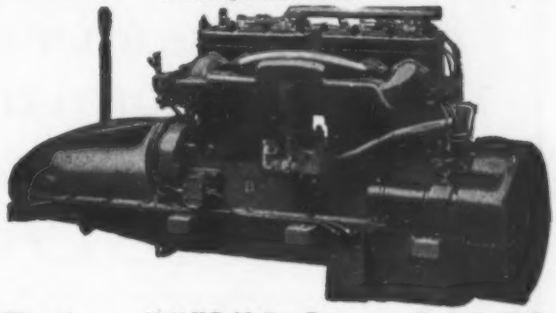
Even the latest member, the F-6, has back of it the knowledge gained by building Sixes for eighteen years and over two years manufacturing experience in the same series. For the greater part of a year, the F-6 has been in active production and has seen use in almost every type of boat, from Maine to California and many foreign lands. It continues the real sensation of Motor Boating, the greatest marine engine of its cubic inches ever developed, surpassing in power competing motors of far greater displacement, some of which have attempted to copy its power producing features.

SCRIPPS has always insisted on reliability and the earlier and latest models hold fast to this traditional policy. They sure do stand up.

A far sighted manufacturing program makes quick delivery service possible—why wait or delay—fitting out time is here.

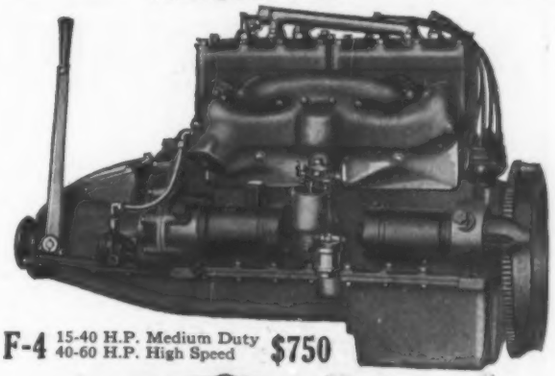


D-2 10-12 H.P. Medium Duty, 15-18 H.P. High Speed, Including Electric Starter **$650**

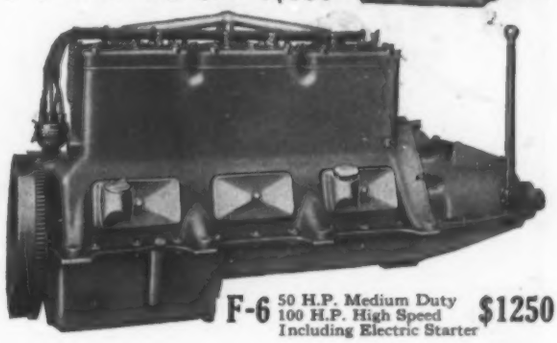


E-4 30-45 H.P. Medium Duty, 45-70 H.P. High Speed, Including Electric Starter **$1250**

E-6 40-60 H.P. Medium Duty, 65-100 H.P. High Speed, Including Electric Starter **$1750**



F-4 15-40 H.P. Medium Duty, 40-60 H.P. High Speed **$750**



F-6 50 H.P. Medium Duty, 100 H.P. High Speed, Including Electric Starter **$1250**

SCRIPPS MOTOR COMPANY

5833 Lincoln Avenue , Detroit, Michigan

TO EUROPE
in less than
5 Days

In all the world there is only one steamer capable of this performance

The Great Cunarder
MAURETANIA

an oil-burner, unmatched in power, unexcelled in appointments, comfort and luxury.

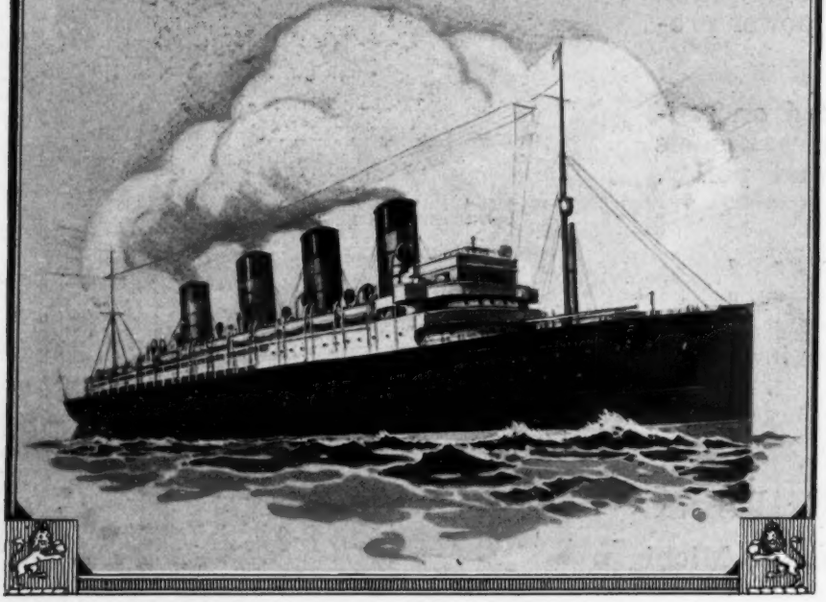
The whole history of transatlantic travel is typified in the growth and development of the Cunard Company—Cunard Ships representing the foremost and most modern ideas in construction and equipment—the utmost possible in service.

THE WORLD'S FASTEST PASSENGER SERVICE DE LUXE
SPLENDIDLY EQUIPPED CABIN STEAMERS
CUNARD "VACATION SPECIALS" (Third Cabin)
LARGE SELECTION OF ROUTES

Requests for literature, schedules, and other information cordially invited.

CUNARD
and **ANCHOR** *Lines*

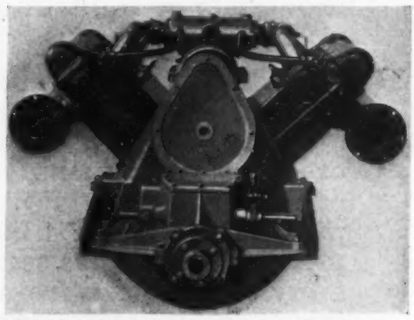
25 Broadway, New York **or Branches and Agencies**



line of Hall-Scott marine motors, has just announced the removal of its Eastern Branch office from Buffalo, N. Y., to 461 Eighth Ave., New York City. All models included in the Hall-Scott line will always be on exhibition, and as a large stock will always be kept on hand, shipment can be made within 24 hours after the receipt of an order. A large stock of spare parts will also be kept at the new branch, and with factory-trained mechanics on the job, Hall-Scott owners will be assured of excellent service at all times.

Cross-Kysor Supermarine Motor

A notable newcomer in the marine engine field is the Cross-Kysor "Supermarine," an 8-cylinder, V-type, high speed engine manufactured by the Cross Gear and Engine Co., of Detroit, Mich. So many improvements and refinements have been made in this new motor that it is notable for its combination of light weight, high power and speed in a compact space. The overall length is only 60", and total weight but 850



The new Cross-Kysor Supermarine Motor.

lbs., yet it is said to develop 220 h. p. at 2000 r. p. m.

The motor has a bore of 4¾ inches and stroke of 5⅛ inches, the cylinders having steel sleeves, machined inside and out, screwed into an aluminum block, the complete assembly forming an *en bloc* type. Pistons are of aluminum alloy, and connecting rods are of tubular steel, being much stronger than an I-beam section rod. The most modern engineering practice is embodied throughout this new creation, which bids fair to create quite a stir in circles where light weight, power, smooth running and reliability are in demand.

Half-Mile-Ray Searchlights

Owners of motor boats and sailing craft alike should investigate the new Half-Mile-Ray Searchlight, manufactured by the Portable Light Co., 110 East 42nd st., New York City. As its name implies, this light casts a bright beam for upwards of half a mile, and is of great value in picking up buoys, shore lines and moorings in crowded anchorages. Different

George A. Kohn's "Felicia" equipped with Kohler Automatic Electric Plant

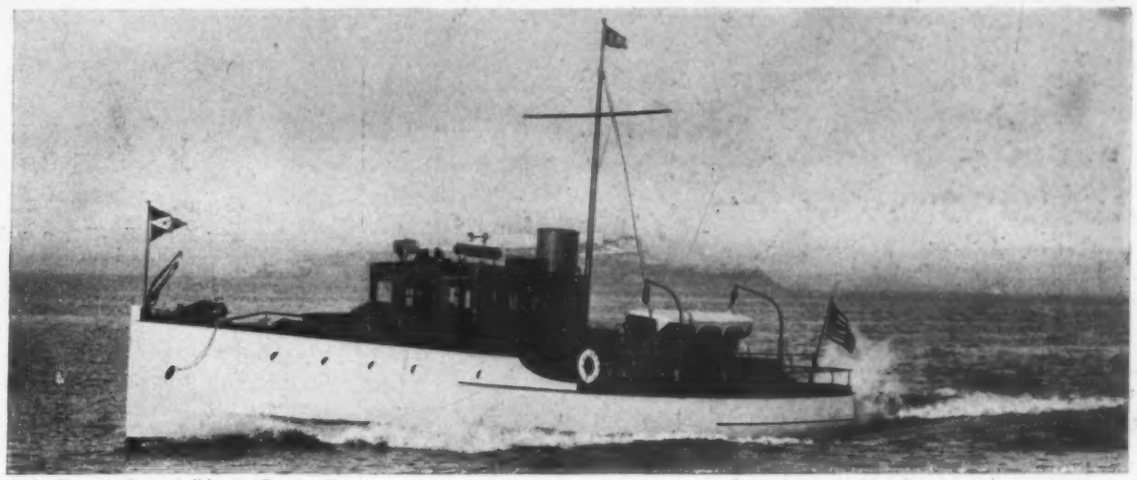
Messrs. Kohler Co. San Francisco, Cal., Feb. 25, 1925
544 Second Street, San Francisco, Cal.

Gentlemen: On December 27, 1921, I purchased one of your Automatic Power and Light Plants, 1½ K. W., 110-volt D. C., and installed same in the 68-foot cruiser "Felicia," of which I am the owner.

I am using for lighting purposes in the interior of the boat 26 lights, and on the exterior 5 lights, including the searchlight. The power is furnished for one electric windlass, consisting of two wildcats and two gypsies, the fresh-water pressure system, bilge and fire pump, vacuum cleaner, and bathtub pump.

The Kohler system I consider one of the best on the market. I have had no trouble in the three years I have had same in use, and can only speak very highly of it.

Yours very truly,
George A. Kohn



Cruiser FELICIA, *George A. Kohn, San Francisco, Owner*

Real power and light in a nutshell

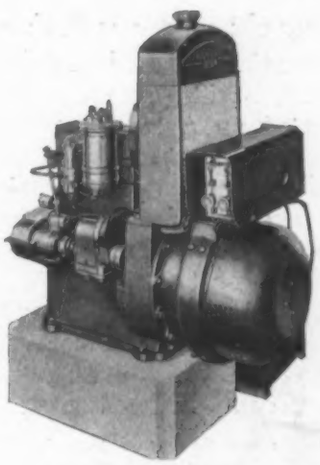
The 1500-watt Kohler Automatic Electric Plant can be stowed away anywhere. It is only 33½ inches long and 14 inches wide: it stands only 34¾ inches high.

And that is all there is to it except a small *starting* battery of the automobile type. The usual space-consuming banks of storage-battery cells are eliminated.

With its current flowing direct from the generator, the full rated capacity of the plant is always available—automatically, with the press-the-button convenience of city electricity. It is 110-volt current, so standard tools and appliances can be used—with complete freedom, for any length of time. And the light is steady and brilliant.

The Kohler Automatic is exceptionally well made. It is quiet, vibrationless, dependable, economical, long-lived. In every field which a private electric plant can serve, the success of the Kohler Automatic has been outstanding.

There are 800-, 1500-, and 2000-watt models, moderately priced and sold on deferred payments if desired. For full information mail the coupon below or visit the nearest Kohler branch.



Kohler Automatic Model D
1500-watt; 110-volt, D. C.

Kohler Co., *Founded 1873*, Kohler, Wisconsin · *Shipping Point*, Sheboygan, Wisconsin
MANUFACTURERS OF KOHLER ENAMELED PLUMBING WARE

ATLANTA, GA. ..... *84 North Pryor Street*
BOSTON, MASS. ..... *445 C Street, South Boston*
CHICAGO, ILL. ..... *763 McCormick Building*
DETROIT, MICH. ..... *35 Parsons Street*
HOUSTON, TEXAS ..... *1319 Texas Avenue*
INDIANAPOLIS, IND. ..... *337 N. Pennsylvania Street*
KANSAS CITY, MO. ..... *1113 Wyandotte Street*
MINNEAPOLIS, MINN. ..... *220 4th Street, South*
NEW YORK, N. Y. ..... *20 West 46th Street*
NORFOLK, VA. ..... *508 Granby Street*
OMAHA, NEB. ..... *1907 Farnam Street*
PHILADELPHIA, PA. ..... *32nd and Oxford Streets*
PITTSBURGH, PA. ..... *401 Penn Avenue*
ST. LOUIS, MO. ..... *524-526 Arcade Building*
SAN FRANCISCO, CALIF. ..... *544 2nd Street*
SEATTLE, WASH. ..... *723 Jackson Street*
LONDON, ENGLAND ..... *216, Great Portland Street*

KOHLER OF KOHLER

Automatic Electric Plants—110 Volt D.C.
No Storage Batteries

MAIL THIS COUPON TODAY

Kohler Co., Kohler, Wis., U. S. A.
Gentlemen: Please send full information about Kohler Automatic Electric Plants.
Name .....
Street .....
City, State .....
Use in which interested ..... Y 4-25

4 out of 5 *now lose*

The law of averages is immutable. Dental statistics prove that four out of every five over 40—and thousands younger, too—are marred by Pyorrhea. Do you want to escape?

It takes healthy gums to keep healthy teeth

Bleeding gums are Nature's first warning. Then the gums begin to recede, lose that rich, healthy pink color. Poisons collect in pus pockets and often drain through the entire system, causing indigestion, anaemia, rheumatism and other serious diseases of mid-life.

Take no chances—use Forhan's

If used in time and used consistently, Forhan's will prevent Pyorrhea, or check its progress—something ordinary tooth pastes are powerless to do. It contains just the right proportion of Forhan's Astringent (as used by the dental profession in the treatment of Pyorrhea). It is safe, efficient and pleasant-tasting. Even if you don't care to discontinue your favorite dentifrice, at least start using Forhan's once a day.

Forhan's is more than a tooth paste; it checks Pyorrhea. Thousands have found it beneficial for years. For your own sake ask for Forhan's For the Gums. All druggists, 35c and 60c in tubes.

Formula of R. J. Forhan, D. D. S.
Forhan Company, New York

Just as a ship needs the closest attention under the water-line, so do your teeth under the gum-line
Forhan's
TRADE MARK
FOR THE GUMS
"BRUSH YOUR TEETH WITH IT"
FORMULA OF
N.Y. YORK
Specialist in
DISEASES OF THE MOUTH
DENTAL

Forhan's

FOR THE GUMS

More than a tooth paste—it checks Pyorrhea

models are made, for every type of boat from the palatial yacht to the smallest canoe. Complete, portable outfits, weighing only fourteen

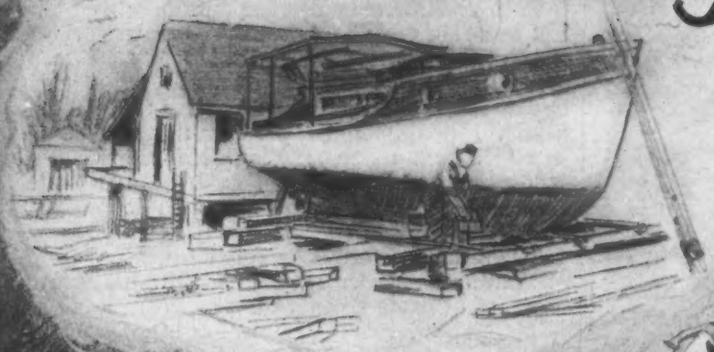
The new Half-Mile-Ray portable searchlight.

pounds, running either on dry or storage batteries, afford the small boatman the same service and satisfaction enjoyed by owners of much larger craft, and at a price he can easily afford to pay.

Anti-Jazz Stove Tongs

No more will it be necessary to tie your pots and pans down on the stove with wire or iron hooks, and never again will one have to sit in front of the Shipmate and hold the coffee pot on with one hand until it boils, when the little ship is under way. In fact the trials of a sea cook are now a thing of the past and there will be no legitimate excuse for not having hot meals, no matter what the weather, if a little device recently perfected by Dr. Westlake is used. This device, which will prove a great boon to the cruising man, is a clamp for pots and kettles that can be used on any coal stove or range, or on any stove that has a frame around it heavy enough to fasten the clamp to. The Anti-Jazz Stove Tongs consist of two ajustable curved arms which fit tightly around the cooking vessel, no matter what its size, and are clamped there. These tongs are pivoted at one end, and this end is bolted or clamped to the side or back of the stove so that the tongs can be swung to cover a particular hole or burner in the stove. They are made with either single or double tongs, so that, with the latter, two pots may be clamped on, each one over a different burner. It is impossible for the pots thus clamped to capsize or to jump out of the tongs or slide off the burner. Two of these were used on different boats in the Bermuda Race last year and gave great satisfaction. So it looks as if the problem of cooking under way or in bad weather had at last been solved.

Is She ready to go?



A thousand and one thoughts run through your mind concerning the equipment of your boat

The warm spring days have aroused the latent boating fever in your veins and crystallized your decision to start outfitting immediately.

Now is the time to take the Carpenter Catalog and make up your order for the articles needed to begin the pleasant task of preparing your boat for the water.

Do not overlook the addition to the vessel's comfort and speed that will be made by the

Carpenter Marine Specialties

The Carpenter Electric Running Light
The Carpenter Electric Post Light
The G. B. C. Adjustable Strut
The Improved Carpenter Steerer
The G. B. C. Port Light
and a thousand and one other articles shown in the Catalog

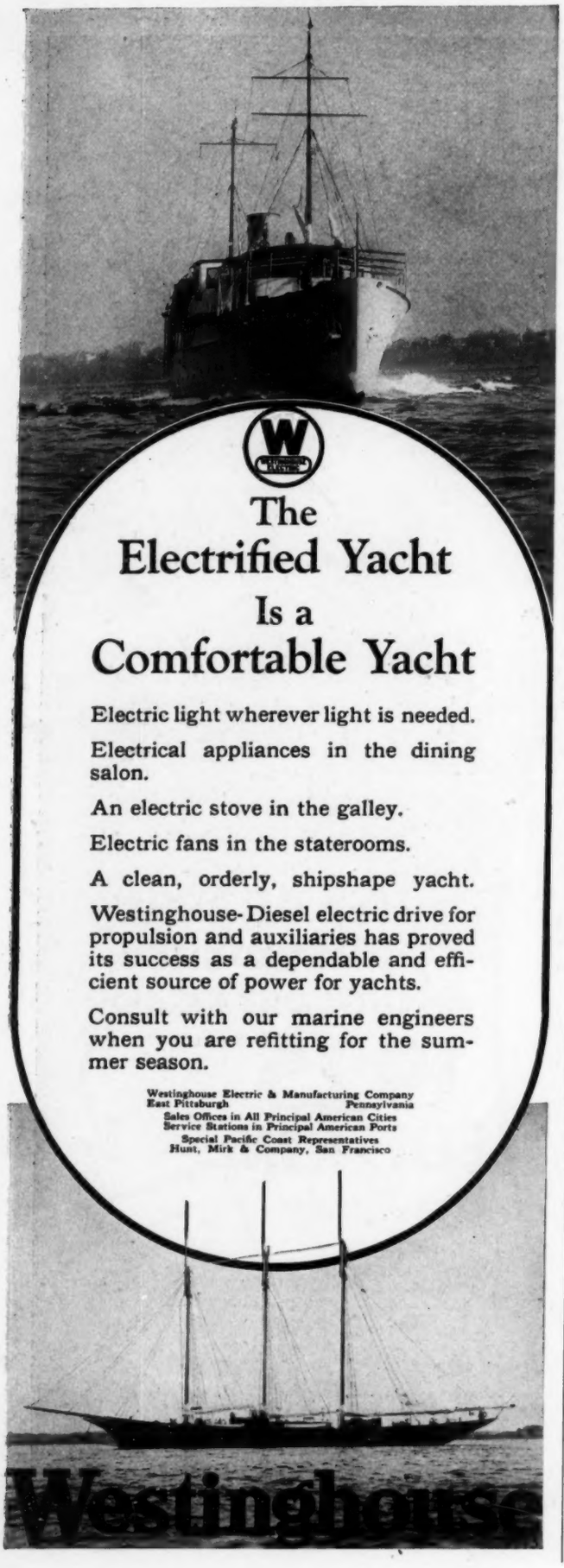
GEO·B·CARPENTER & CO.
MARINE SUPPLIES
Sailmakers and Riggers
202 W. Austin Avenue
CHICAGO

Check up your requirements against our catalog

1925 EDITION

Now Ready with Revised Prices

Write for your copy at once!


The
Electrified Yacht
Is a
Comfortable Yacht
Electric light wherever light is needed.
Electrical appliances in the dining salon.
An electric stove in the galley.
Electric fans in the staterooms.
A clean, orderly, shipshape yacht.
Westinghouse-Diesel electric drive for propulsion and auxiliaries has proved its success as a dependable and efficient source of power for yachts.
Consult with our marine engineers when you are refitting for the summer season.
Westinghouse Electric & Manufacturing Company
East Pittsburgh Pennsylvania
Sales Offices in All Principal American Cities
Service Stations in Principal American Ports
Special Pacific Coast Representatives
Hunt, Mirk & Company, San Francisco
Westinghouse

Spun Yarn

(*Continued from page 44*)

Her name was the *Ellensay*. We were bound from Quebec to Liverpool with a cargo of lumber. On the eastern edge of the Banks of Newfoundland we ran into a westerly gale. It was all hands out in a hurry to shorten sail. We snugged her down to lower topsails and reefed main upper topsail. For two days it blew like blazes, and the crew pumped until their arms turned to leather, while more ocean seeped in through her old oaken seams.

Then one morning the Captain shouted, "Shake the reef out of the main upper topsail and set the fore and mizzen."

A young sailor crawled out on the weather yardarm. As he was about to let go the reef earring the Welsh Captain, from the poop, thought he saw that a reef point was still fast next to the earring. He called aloft to the sailor,

"Let go that reef point before you do your earring. If you tear that sail you'll pay for it!"

The sailor had taken one of the turns of the reef knot off. The under hitch was wet and stiff. This he knew would come adrift when he let go the reef earring.

The Captain roared again. "Let it go, damn you, let it go!"

Then the sailor made an angry dive for it with both hands, and as he did so the sail ballooned and he fell backwards off the yard, and down, down till his body struck the fore-brace pennant. Then he bounced into the sea.

"Man overboard!" went up the howl.

Somehow we managed to throw a lifebuoy within his reach, but it seemed ages to us before we could get a boat overboard. We carried a deckload of lumber and there were high wooden stanchions along the bulwark rail — four-by-sixes — which had to be sawed down before the boat would go outboard. There was a man in the mizzen-top with glasses, and as we pushed off he shouted:

"I think he's away off on the starboard quarter!"

After a long, long pull in a dirty jabble of a sea, we found the young sailor. There was still some life in him. When we got him on board and the wound the wire pennant had made had been attended to, he told us how it was that he had lived.

"From cold and loss of blood my head kept wabbling," he said, "and time and again it fell over the lifebuoy and into the water. In this position I had a queerly comfortable sensation, like pleasantly drifting. Then I'd be aroused by something picking, picking at my head. It seemed as though my body were hollow and the vibrations reached clear to my toes. I thought that if this was death it certainly was Hell, and I'd make another fight to get rid of it. It was awful. Every time I'd throw up my head it would stop; then, as soon as my head fell again it would start. At last, wide awake, I held up my head and shook it, and then I saw what it was that had been tapping me. It was a little sea bird. When he flew away I realized that it was he that had kept me alive; and by then the boat was coming."

The back of the young sailor's head showed plainly that he had been telling the truth, and that it was indeed a feathered creature that had kept him alive with this primitive first aid!

By the time we had arrived at Liverpool he was getting away with his whack as usual, and the bird, unidentified, was hundreds of miles away.

What a strange thing is life; so easy to dispose of, and yet so tenacious to every little chance!

Now, as I pull myself back out of memory and light my old dudeen, I am wondering why the Filipino chose to do away with that which was him under the zenith rays of the sun. I bow to Old Ocean. She would perhaps tell me, had I the ears to hear.

Another Wamsutta Winner

"The cloth stood up in splendid shape"

On E. A. Boardman's "Snipe"

WAMSUTTA Yacht Duck made a great record for itself at Marblehead last summer. This is what E. A. Boardman says of it, after using Wamsutta sails on his "Snipe" all through the season.

SNIPE
Class I
E. A. Boardman, Owner, Boston, Mass.
RIGGED WITH WAMSUTTA
Some Record!
1924
17 Firsts
out of
22 Starts

"'Snipe' was equipped with a suit of Wamsutta 6 oz. sails last summer made by Cousens & Pratt. The cloth and sails in general proved to be most satisfactory, as possibly the record of the boat may show.

"I put her through last season's racing at Marblehead without reefing, and the cloth stood up in splendid fashion. As you are probably aware, the flow of a mainsail is very apt to come aft in heavy breezes, and I think on the whole this mainsail held its shape better than any gaff sail I have ever sailed."

Try a suit of Wamsutta next season — like the many skippers who used it you may find its super quality just the added factor you need to put you over the line a consistent winner.

Samples from your sailmaker, or direct from

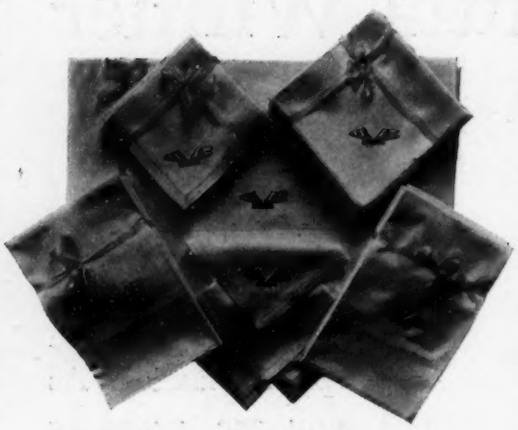
HOWE & BAINBRIDGE
Distributors
220 Commercial Street, Boston, Mass.
Made in All Weights for Boats of Every Size

WAMSUTTA YACHT DUCK

Made in America for American Yachts

WAMSUTTA MILLS, New Bedford, Mass., *Founded 1846.*—RIDLEY WATTS & CO., *Selling Agents*, 44 Leonard St., N.Y.

MOSSE
INCORPORATED
730 FIFTH AVE
NEW YORK, N.Y.



To have yacht linens that are really your own, marked with your own flags, costs no more than a haphazard, impersonal collection. Mosse yacht linens are designed for sea use and are appropriately substantial. ¶ Linens for the coming season should be arranged for now. Designs and estimates will be cheerfully furnished to members of recognized yacht clubs.

LINENS FOR THE YACHT

The Cruise of *Diablesse*

(*Continued from page 33*)

bombarded — in a desultory way by a rebel general who had taken one of the outforts.

Off Viejo Frances, that night, we ran through a flotilla of American destroyers who lighted up like a fleet of summer hotels when we swung a lantern from our cockpit.

At one-thirty on the morning of the 28th, after a night in the Mona Passage, we dropped anchor off Mayaguez, Porto Rico, with no food left but a pail of salt mackerel, and only six shillings in the strong box.

Here we found the schooner *Lavinia M. Snow*, of Rockland, loading coconuts, and we gammed with her genial captain who told of his experiences in Porta Plata a month before, when the revolution was young, and he had been forced out with only the half of his cargo of lumber landed. And after we had sold our six shillings to the port doctor, who shortly was going to England, and borrowed two dollars from the harbormaster, we put to sea again with our pail of mackerel still unbroached.

Our last afternoon. Porto Rico going down off our quarter, Culebra alee and St. Thomas raising under the tip of our bowsprit. A disturbance which for two days has been horning up to loo'ard has moved away somewhere to the northwest — and with it the wind. Calm, but an easy sea. Hot, and the last of our water in a couple of bottles, under lock and key. No food left. We have poked out every corner and even lifted the floor boards for any stray tin that may have slipped into the bilges. Fred's "hard times" locker where he stows away stray bits of left-overs for 'tween snacks shows nary a crumb. Even the mackerel are no longer to wind'ard of our clamoring stomachs!

Towards evening a heavy rain squall sweeps down and by dint of slacking away and slewing the main gaff to port with the signal halliards and hauling the boom to starboard, twenty gallons of delicious cool water are soon bagged. Into the tanks it goes while we founder ourselves with the primage. Food? Well, one can't ask too much of the Lord, but there comes a pretty little breeze that eases its back very snugly into our sails and *Diablesse* heels a bit to the weight of it.

The last night of our long run is slinking off. A pale light begins to rim the mountain ridge of St. Thomas — now close on our beam. The breeze comes brokenly. Water Island steps out to nudge our bow. And just as the sun teeters his first rays down the eastern shoulder of the island — he has a way of glancing athwart the valleys and picking out particularly lovely spots, one after another, where one would wish to live — we stand into the harbor of Charlotte Amalia and splash our anchor in two fathoms, just to westard of the King's Wharf. This is on the second of June — a few days over three weeks from Nassau — and we have lost a bet of a case of Danish beer to certain of our friends, by thirteen days!

(*To be continued.*)

Palm Beach Opens Racing Season

(*Continued from page 34*)

not over 36 feet, with over 300 h. p. An ocean race for cruisers was run over a 35-mile ocean course, the winner being *Gar Jr., II*, owned by G. A. Wood, followed by *W. J. Conners III*, *Venture* and *Fifi*.

The race for high speed displacement runabouts for the Bradley Gold Challenge Cup went to *Little Old Man*, owned by Rodman Wanamaker, 2nd, followed by *Baby Cub*, *Bebe*, *Mary* and *Baby Gar IV*, the winner averaging 45 miles per hour. In a free-for-all, *Baby Cub*, owned by Howard Lyon, breezed in ahead of *Baby Gar IV* and *Mary*. A ladies' race in the 151 Class concluded the program, Miss Clare Heidelberg bringing *Miss Quincy VII* home a winner over the field.

Your flag on your china on your yacht

EVERY YACHT worthy of the name takes pride in having all of its gadgets "ship-shape." But, strangely enough, the man who would not tolerate an uncoiled rope, or a tarnished bit of brass, will permit in his galley a kind of china that might grace a strawberry festival in Urbana, Ohio, but is very much out of place on any yacht with a claim to smartness.

There is just one way to do it and it is not so very expensive either. Have your own china with your own flag, on your own boat.

You need not have a complete service suitable for a town house, but what you have should be good.

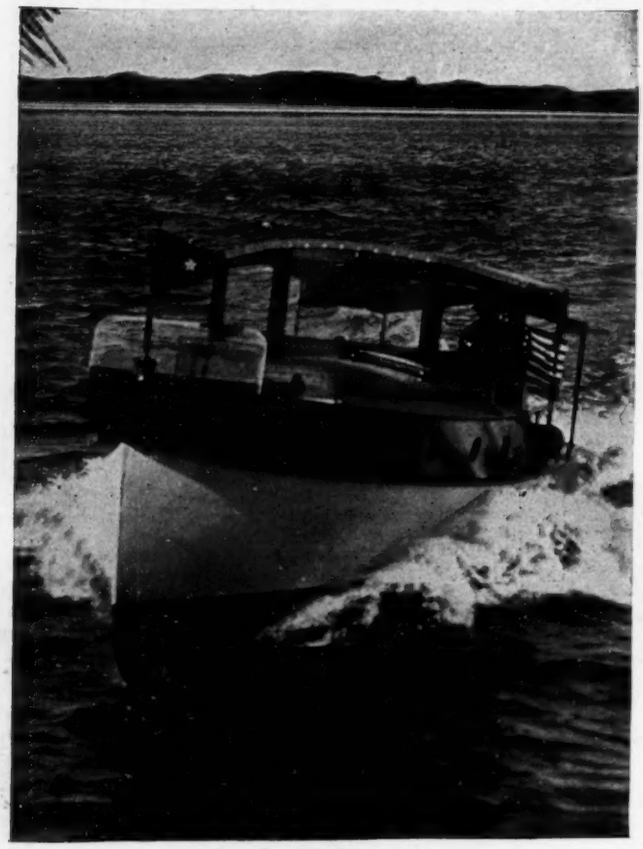
Here at Ovington's you can get excellent china decorated to your own design at very reasonable prices indeed. A dinner service for six may be had for as little as one hundred dollars, and crystal costs even less.

We have succeeded, we think, in bringing sensible prices to yacht china and we are delighted to submit designs to any member of a recognized yacht club.

OVINGTON'S

"The Gift Shop of Fifth Avenue, Inc."

Fifth Avenue at 39th Street



From Palm Beach to Bar Harbor the smartest *small* craft is the Consolidated Playboat

EXPERIENCED yachtsmen tell us that it would be difficult to imagine a more consistently *useful* type of small cruiser than the 34 foot Playboat illustrated above — an exclusive Consolidated design.

A considerable fleet of Playboats is already in service, some in Southern and some in Northern waters, for fishing, day sailing and short cruises. The noteworthy feature of this type of boat is its remarkable combination of seaworthiness, comfort, simplicity and economy of operation along with high speed.

At the time this advertisement goes to press only four Consolidated Playboats remain in stock available for May delivery, subject to prior sale. To avoid disappointment write or wire your reservation today.

CONSOLIDATED SHIPBUILDING CORP.
MORRIS HEIGHTS NEW YORK CITY

Designers and Builders of Runabouts Playboats

Day Cruisers House Boats North and South Cruisers Motor and Steam Yachts

Sails, their Overhaul and Care

(*Continued from page 26*)

bolt rope you can see if the inner fibres of the rope are new looking, or are dark and aged. See if the yarns composing the strands of the rope have chafed until they are partly broken, or if they are sound and intact.

One can soon tell when the sail cloth is rotten by putting a sail needle through it. Old cloth will break, its fibres will crack off short like an old pipe stem and the fibres are darkened with age and decay, while in a good sail the fibres will spread apart and stretch, but will not break.

The worst thing one can do to a sail is to get it soaking wet and then roll it up, put a sail cover over it, and leave it the ensuing week with a hot sun beating down upon it. Such treatment will soon shorten the life of any sail cloth. This is something of which business men who have only Saturday afternoons and Sundays to do their sailing in are frequently guilty. If you have no one who can go out and hoist your sails next day and dry them out properly, it is far better not to roll them up, but to stow loosely.

The modern Marconi rig, fitted to hanks that slide up the mast on a track and out on the boom, and that permit unbending the sail in a few moments, has done a lot to preserve the life of sails. With these, sails do not have to be left six days unattended in all kinds of weather. They can be taken off and put below where they are dry and protected. Before bending your sails when going into commission, see that the track is in good shape, that none of the screws holding it to the mast are loose, and that all of the slides are securely fastened to the sail itself.

Improving the Motor Cruiser

(*Continued from page 56*)

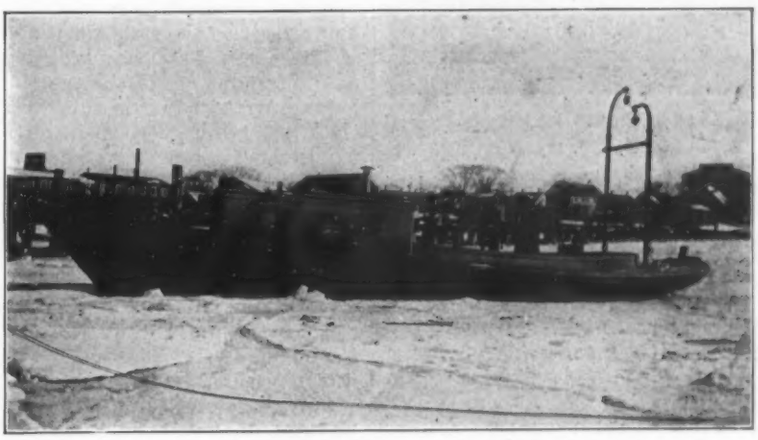
capable of producing something sweeter to the eye than the present "raised deck" or broken sheer and the horrible sawed-off transom sterns, in boats where speed is not a consideration.

A further improvement in appearance is a well-proportioned stack. Now, to some of us at least, a power boat without a stack is as unfinished as a sailboat without a mast, or a house without a chimney. The stack is not only essential for housing the exhaust, and ventilating the engine-room, but may further serve to house the galley stove pipe, thereby insuring proper functioning of the stove even if green water should come aboard.

In order to make the question of cruising radius more clear, let us assume a boat embodying the characteristics suggested. We will say that she is 35 feet long over all, 8 feet beam, and 4 feet draft, powered with a three-cylinder, four-cycle, heavy-duty engine of 5¼" bore and 6½" stroke, rated 18 h. p., at 450 r. p. m. As we shall only use 80% of that power, we will have 14½ h. p. somewhere between 370 and 400 r. p. m. At this power output the engine will not burn more than 1½ gallons per hour and will drive the boat at certainly not less than 7 knots. Now, two cylindrical tanks, each 6 feet long by 18 inches diameter, one on either side of the engine room, will not take up an undue amount of space, and will have a total fuel capacity of 150 gallons, which, obviously, gives us a cruising radius of 700 nautical miles at 7 knots.

Now seven *knots*, in the face of many figures (most of which are based on "selling speed"), may seem very slow. And yet I will have the effrontery to say that, on a coastwise run of 600 miles, in which our 7-knot boat, a sailboat, and a conventional "10-mile cruiser," all of equal tonnage, start together, our 7-knot boat will finish first by many hours! Why? Because the conventional "cruiser" will have to put into port at least once for fuel (and oftener if the weather is bad, for a rough or head sea will slow her up quickly) and the sailboat will not have a fair wind over her quarter all the way. Remember, elapsed time is the only kind of time that counts.

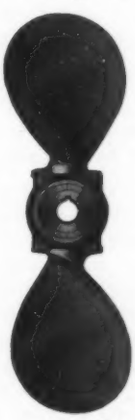
HYDE



THE "RUTH CUMNOCK" *of Portland, Maine*
36 ft. Overall Length, 11 ft. Beam, 5½ ft. Draft, 7¾ Tons

DURING the past winter the scallop boat "Ruth Cumnock" has been bucking ice around Portland Harbor and Casco Bay with a

Hyde Automatic Feathering Propeller



WORKING

The owner has given it the severest possible usage following instructions **to find the weak points.**

It backs, goes ahead and goes back again at all speeds, and repeated demonstrations have shown it to feather instantly — **and it is still working.**

Mr. Fred F. Boyce of 43 Munjoy Street, Portland, Maine, will be glad to answer any questions in regards to the performance of the "Ruth Cumnock" and the **Hyde Automatic Feathering Propeller** with which the boat is equipped.

It is the **only** automatic feathering propeller which is absolutely guaranteed to work in all three positions, ahead, astern and feathering.

It is made of the same manganese bronze used in our regular line of propellers and has that nicety of finish and workmanship that marks all **Hyde Quality Products.**

FEATHERING

Information and prices furnished on request

HYDE WINDLASS COMPANY, BATH, MAINE

A Beautiful Lasting Fabric

TEXTASOTE combines beauty with durability, and is therefore found on the most costly yachts in place of duck.

Visitors to the recent Motor Boat Show noted Textasote on high-class cruisers for awnings, deck canvas, boat covers, hatchways, and spray hoods.

Textasote does not leak, cannot rot, lays flat, and being soft and pliable, is easy to tailor and lay. It is far more beautiful and lasting than ordinary duck.

Textasote comes in many weights and colors. For awnings — blue, green, red, orange and tan with the same color on both sides, or different on each. For spray hoods and dodgers, boat covers, bridge screens, weather cloths and for decks — tans and grays are supplied.

WRITE! Large samples of Textasote will be sent to any builder, architect or owner on request.

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for yacht cushions and upholstery

PANTASOTE, the famous durable fire-resistant artificial leather is standard.

RUSSIALOID is less expensive but will stand long, hard service for the same purpose.

The Return of the *Cutty Sark*

(*Continued from page 66*)

had passed out of British ownership and started on the downward road in the hands of various Portuguese owners, who had her rig cut down to that of a barkentine. For in her day the *Cutty Sark* was not a famous ship. She was smart, made many fast passages, but she never led the tea fleet home, as her owners hoped she might do when they built her. She never made a record day's run; she was only partially successful as a money earner. Yet she was the last of a line to survive, a ship that had outlived her generation and fallen upon evil days, and she appealed to the British sentiment and was restored as she was in the hey-day of her career, as a monument to the sailor of the sail.

The *Cutty Sark* was launched in 1869, near the end of the famous era of the tea clippers. Steam was already beginning to cut in on this profitable trade, and most of the *Cutty's* days were spent in this trade, or the Australia wool trade, competing against steam. In the latter trade her outward voyage was around the Cape of Good Hope, and she would come from Sydney by way of Cape Horn, running her easting down in the high latitudes just north of the Antarctic ice. It was here, under command of Captain Woodget, that she made some of her fastest day's runs. The best of these were from 340 to 370-odd miles in 24 hours. It is said of her that "on a bowline," closehauled, she has done as much as 300 miles in 24 hours.

But the story can't all be told here and do justice to the gallant little ship. You had better buy *The Return of the Cutty Sark*, and live over her fifty-five years of hard driving over all the seas of all the world. H. L. S.

In the Lee of the Long Boat

(*Continued from page 62*)

I hear that the Boston Chapter of the Cruising Club of America is organizing a race for cruising boats under conditions similar to the Bayside-Block Island race — the boats to use both sails and motors — and that they already have four entries. Good dope. I like to see tryouts among cruising craft, and as auxiliaries use both sail and power when cruising, it's perfectly logical to let them use both wind and gasoline in a race, and thereby get a line on what they will do under cruising conditions. I hope the Down East gang has as much success with their race as the Bayside bunch have had with theirs.

Pleasure and Science

(*Continued from page 37*)

and get out of the way, and they of course must be taken in a trawl. But we had on board a small low-power microscope and under its medium lens the littler animals revealed unexpected beauties of form and color. I well recall one little fish that we caught in the Gulf Stream, with rows of tiny phosphorescent spots along its sides like the shining portholes of a liner that passes in the night.

The bottom forms, or Benthos, are probably the most interesting of all and their capture is really quite easy provided one confines himself to depths of under 200 fathoms. These animals are caught by means of a trawl or dredge which drags slowly along the sea bottom, scooping in the organisms which lie in its path. The Agassiz Trawl is simple to construct, light to handle, and inexpensive. It has the further advantage that, being of a double barreled nature, there is no danger of its not catching anything in case of turning over after it has been shot. The animals which it will bring up being larger and of a more obvious nature than the smaller but more important Plankton will probably give greater interest to the amateur, at least in the early stages of his oceanographic career.

(*Continued on page 84*)

Elto Improved for 1925

Many improvements will be incorporated in the 1925 model Elto outboard motor, manufactured by the Elto Outboard Motor Co., Milwaukee, Wis. Lynite, a new alloy metal combining great strength, toughness and resistance to corrosion, will be used in place of aluminum. The crankshaft, drive shaft and propeller shaft will be of 3½ % nickel steel, case-hardened and ground. The carburetor, of the mix-

The Elto 1925 Model Outboard Motor.

ing valve type, has been so improved that it will require no attention whatever aside from the one ordinary gasoline adjustment. A new gasoline filler cap, of the non-leak automatic check valve type absolutely prevents leakage, and adds greatly to the comfort and convenience in carrying and stowing of the motor.

Haynes-Griffin Radio Service

Many yachtsmen hesitate to install radio equipment on their craft for fear that it won't work properly on account of improper installation. Fears of this sort will be quickly dissipated by a visit to the Haynes-Griffin Radio Service, Inc., shop at 41 West 43rd St., New York. This concern not only handles many different makes of high grade sets, but specializes on marine installations, their experience on this kind of work assuring a hook-up and installation which will give thorough satisfaction. A visit to their shop and a consultation with their Marine Department should prove an eye-opener for anyone who doubts that radio will not work as well on water as on land.

If you're old enough to vote

try **Barbasol**

no soap—no brush
no rub-in

Just spread it on and shave it off

"I will never go back to lather and the filthy shaving-brush habit again."

That is the gist of thousands of letters written to us by confirmed users of Barbasol.

For Barbasol has taught them a cleaner, quicker, more pleasant way to shave.

Barbasol does away with soap, the shaving brush and the tedious, skin-irritating rubbing-in.

When you use Barbasol all you need is a razor.

The operation is simple as A B C.

Wet your face good; spread on Barbasol; shave it off.

Barbasol holds the beard upright to meet the cutting edge of the razor.

The blade glides over the face smoothly as a sled runner on the ice, giving you a clean shave and a quick shave, leaving your face soft, smooth and comfortable.

Step into the first drug store and buy a tube of Barbasol today. Enough for a month, 35 cents; 65 cents for a two months' supply; or send coupon for our generous trial tube, enough for a week's shaving.

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